



Department of Watershed Management

**WATERSHED MGMT.
COMMISSIONER**

STORMWATER

**ENVIRON.
COMPLIANCE**

**ENGINEERING
SERVICES**

**DRINKING
WATER**

**WASTEWATER
TREATMENT &
COLLECTION**

Mission Statement

The Department of Watershed Management is dedicated to providing clean, safe, affordable drinking water and best-in-class wastewater and stormwater collection and treatment services to City of Atlanta ratepayers, businesses and residents and to its wholesale customers.

Clean Water Atlanta Initiative				Water		
Department of Watershed Management Capital Improvement Program						
Page	Project Name	Project Manager	WBS No.	Project Total	Funded Total	Unfunded Total
Consent Order (Water)						
1	River Intake Erosion Control Improvements	Lee Hunt	98.08.033	10,700	10,700	0
2	Hemphill & Chattahoochee WTP Improvements	Lee Hunt	98.02.034	33,129	33,129	0
3	Fairburn Road Pump Station & Water Mains	Lee Hunt	98.03.011	38,682	0	38,682
4	Koweta Road Pump Station & Water Mains	Lee Hunt	98.03.013	48,967	0	48,967
5	Hartsfield Pump Station - 4th Pump	Lee Hunt	98.03.010	397	0	397
6	Northside and Adamsville Pump Station - I&C and Electrical Renovations	Lee Hunt	98.08.028	3,117	3,117	0
7	Hemphill Reservoir #1 Embankment Repair	Lee Hunt	98.08.029	5,000	5,000	0
8	Civil Engineering & Field Inspection Services	Lee Hunt	08.04.011	1,500	1,500	0
9	Facility Dehumidifiers & Ductwork Installation	Lee Hunt	98.08.030	2,251	2,251	0
10	Reserve for Appropriations - Water Consent Order	Calculation	98.99.001	4,402	0	4,402
Subtotal		Consent Order (Water)		148,145	55,696	92,448
Regulatory or Contract Compliance						
11	Back Flow Preventors/Flowmeters - Annual Contract	Lee Hunt	08.02.009	1,263	0	1,263
12	Soil Remediation and Site Closure	Lee Hunt	98.08.039	3,970	0	3,970
13	American Disabilities Act Facility Improvements - Annual Contract	Lee Hunt	08.02.012	650	650	0
14	Water Tank Structural Repair and Painting	Lee Hunt	98.08.034	4,763	0	4,763
15	Homeland Security	Marie Shadden	98.08.047	28,200	4,000	24,200
16	New Water Meter Installation - Small Meter - Annual Contract	Lee Hunt	08.02.005	66,000	6,000	60,000
17	North Area Treatment Plant - Phase 2.5	Lee Hunt	98.02.951	33,500	20,000	13,500
18	North Area Treatment Plant - Phase 3.0	Lee Hunt	98.02.952	20,000	0	20,000
19	Reserve for Appropriations - Regulatory or Contract Compliance	Calculation	98.99.003	6,385	0	6,385
Subtotal		Regulatory or Contract Compliance		164,731	30,650	134,081
System Renewal or Operational Reliability						
20	Intake Pipe Improvements	Lee Hunt	08.02.011	653	0	653
21	Chattahoochee Plant Various Improvements	Lee Hunt	98.08.041	4,755	0	4,755
22	Facility Roof Improvements	Lee Hunt	98.08.043	800	0	800
23	Hemphill Plant Various Improvements	Lee Hunt	98.08.042	2,652	0	2,652

*Amounts in thousands of dollars

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Clean Water Atlanta Initiative						Water
Department of Watershed Management Capital Improvement Program						
Page	Project Name	Project Manager	WBS No.	Project Total	Funded Total	Unfunded Total
24	Downtown Elevated Storage Tanks	Lee Hunt	98.05.003	4,500	0	4,500
25	Adamsville Pump Station & Main Improvements	Lee Hunt	98.03.009	30,310	0	30,310
26	Glenridge Booster Pump Station	Lee Hunt	98.03.003	1,851	0	1,851
27	Distribution System Hydraulic Model Update	Lee Hunt	98.04.024	397	397	0
28	Raw Water Transmission Mains	Lee Hunt	98.04.007	49,578	0	49,578
29	South-West Main Improvements	Lee Hunt	98.08.024	27,484	0	27,484
30	Transmission Main - Hemphill South	Lee Hunt	98.04.003	37,974	0	37,974
31	North Area Main Improvements	Lee Hunt	98.04.019	50,561	0	50,561
32	Pipeyard Substation and Central Warehouse	Lee Hunt	98.02.035	2,000	2,000	0
33	Water Laboratory and Water Works Lodge Renovation	Lee Hunt	98.08.031	5,850	0	5,850
34	Water System Plant Maintenance Building	Jimmy Gragg	98.08.048	3,884	0	3,884
35	Automation of Hemphill and Chattahoochee Treatment Plants	Lee Hunt	98.08.037	10,000	0	10,000
36	Electrical Switchgear Replacement	Lee Hunt	98.08.038	1,700	0	1,700
37	Sludge Belt Presses	Lee Hunt	98.04.017	5,500	0	5,500
38	Facility HVAC Improvements - Hemphill and Chattahoochee	Lee Hunt	98.08.036	2,251	0	2,251
39	Asset Management System	Lee Hunt	08.04.010	1,985	0	1,985
40	Comprehensive MOM Plan Development & Implementation	Lee Hunt	98.10.001	2,000	0	2,000
41	Customer Billing and Information System	Melinda Langston	08.04.012	8,000	0	8,000
42	Pipe Laying - Annual Contract	Lee Hunt	08.02.010	137,000	9,000	128,000
43	Raising Valve & Manhole Covers - Annual Contract	Lee Hunt	08.01.010	8,250	750	7,500
44	Water Meter Replacement and Automated Meter Reading - Annual Contract	Lee Hunt	08.02.001	66,000	0	66,000
45	Repair and Replacement of Large Water Meters - Annual Contract	Lee Hunt	08.02.004	4,500	1,500	3,000
46	Valve, Pipe, and Fire Hydrant Repairs/Replacements - Annual Contract	Lee Hunt	08.02.002	2,300	2,300	0
47	Water Line Replacement in the Stockade Combined Sewer Basin	Lee Hunt	98.04.029	20,500	0	20,500
48	Water Line Replacement in the McDaniel Combined Sewer Basin	Lee Hunt	98.04.028	9,800	0	9,800
49	Water Line Replacement in the Greensferry Combined Sewer Basin	Lee Hunt	98.04.027	11,900	0	11,900
50	Water System Leakage Audit and Underground Void Detection	Lee Hunt	08.02.007	3,500	3,500	0

*Amounts in thousands of dollars

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Clean Water Atlanta Initiative					Water		
Department of Watershed Management Capital Improvement Program							
Page	Project Name		Project Manager	WBS No.	Project Total	Funded Total	Unfunded Total
51	Testing and Analysis of Large Water Meters - Annual Contract		Lee Hunt	08.02.003	500	500	0
52	Reserve for Appropriations - System Renewal or Operational Reliability		Calculation	98.99.002	24,949	0	24,949
Subtotal		System Renewal or Operational Reliability			543,884	19,947	523,937
Subtotal		Water			856,760	106,293	750,467

*Amounts in thousands of dollars

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Clean Water Atlanta Initiative				Wastewater		
Department of Watershed Management Capital Improvement Program						
Page	Project Name	Project Manager	WBS No.	Project Total	Funded Total	Unfunded Total
Consent Decree (CSO)						
53	Tanyard West Area Disinfection Facility	Paula Days	05.04.003	500	500	0
54	CSO Dechlorination West	Chris Staud	05.19.001	3,514	3,514	0
55	West Area CSO Treatment Plant	Paula Days	05.15.001	54,639	4,599	50,040
56	Intrenchment Creek CSO Treatment Plant	Russ McKern	05.16.001	24,016	2,701	21,314
57	Intrenchment Creek WRC Capacity Expansion	George Barnes	05.25.001	6,607	107	6,500
58	CSO Cost Sharing Projects	Lowell Chambers	05.96.001	21,300	0	21,300
59	CSO Interim Relief Projects	Lowell Chambers	05.97.001	50,000	0	50,000
60	West Area CSO Storage Tunnel and Pumping Station	George Barnes	05.13.001	252,254	86,932	165,322
61	Custer Avenue Storage and Dechlorination Facility	George Barnes	05.14.001	16,060	1,521	14,539
62	Stockade Combined Sewer Separation - Phase 2	Lance Clark	05.18.201	62,785	11,489	51,296
63	McDaniel Combined Sewer Separation	Lance Clark	05.18.100	41,345	5,219	36,126
64	Greensferry Combined Sewer Separation	Lance Clark	05.17.400	52,541	6,504	46,037
65	Greenway Acquisition - Consultant Services	Susan Rutherford	05.09.007	6,848	5,098	1,750
66	Greenway Acquisition - Land Acquisition	Susan Rutherford	05.09.006	25,000	19,000	6,000
67	CSO Program Management Services	Rob Hunter	08.01.092	18,492	6,059	12,434
68	Reserve for Appropriations - Consent Decree (CSO)	Calculation	99.02.005	24,133	0	24,133
Subtotal Consent Decree (CSO)				660,034	153,243	506,791
First Amended Consent Decree (SSO)						
69	Camp Creek Outfall Capacity Relief-Phase 1	Lowell Chambers	04.16.357	1,375	0	1,375
70	Pump Station 2003 Improvements (BR,PL,PA,RF)	John Reinhard	03.06.903	5,000	490	4,510
71	STCTSOP - Force Main Corrosion Testing	Jerri Russell	09.02.904	83	83	0
72	Nancy Creek Tunnel	Ade Abon	04.26.001	149,896	149,896	0
73	Nancy Creek Tunnel Pump Station Phase 2	Larry Harrod	04.26.002	32,250	32,250	0
74	Sewer Group 2 - SSES	Lowell Chambers	04.17.001	21,882	15,224	6,658
75	Sewer Group 3 - SSES	Lowell Chambers	04.18.001	18,585	0	18,585
76	Sewer Group 4 - SSES	Lowell Chambers	04.19.001	15,645	0	15,645
77	Sewer Group 5 - SSES	Lowell Chambers	04.20.001	12,285	0	12,285

*Amounts in thousands of dollars

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Page	Project Name	Project Manager	WBS No.	Project Total	Funded Total	Unfunded Total
78	Sewer Group 6 - SSES	Lowell Chambers	04.21.001	12,285	0	12,285
79	Sewer Group 1 - Rehabilitation	Lowell Chambers	04.16.200	80,784	10,000	70,784
80	Sewer Group 2 - Rehabilitation	Lowell Chambers	04.17.200	83,160	0	83,160
81	Sewer Group 3 - Rehabilitation	Lowell Chambers	04.18.200	82,728	0	82,728
82	Sewer Group 4 - Rehabilitation	Lowell Chambers	04.19.200	69,768	0	69,768
83	Sewer Group 5 - Rehabilitation	Lowell Chambers	04.20.200	55,944	0	55,944
84	Sewer Group 6 - Rehabilitation	Lowell Chambers	04.21.200	51,408	0	51,408
85	Sewer Group 1 - Relief	Lowell Chambers	04.16.300	21,300	0	21,300
86	Sewer Group 2 - Relief	Lowell Chambers	04.17.300	62,100	0	62,100
87	Sewer Group 3 - Relief	Lowell Chambers	04.18.300	149,100	0	149,100
88	Sewer Group 4 - Relief	Lowell Chambers	04.19.300	52,600	0	52,600
89	Sewer Group 5 - Relief	Lowell Chambers	04.20.300	116,400	0	116,400
90	Sewer Group 6 - Relief	Lowell Chambers	04.21.300	120,200	0	120,200
91	SSO - Cost Sharing Relief Projects	Lowell Chambers	04.96.001	10,956	0	10,956
92	Program Management Services (SSO)	Rob Hunter	08.01.091	41,485	12,474	29,011
93	Construction Management Services	Marcia Hurd-Wade	08.99.001	8,000	0	8,000
94	Large Diameter - Clean, Find and Fix Contract - Annual Contract	Lowell Chambers	08.01.003	42,000	0	42,000
95	Large Diameter Sewer Rehabilitation - Annual Contract	Lowell Chambers	08.01.002	39,270	0	39,270
96	Small Diameter Sewer Rehabilitation - Annual Contract	Lowell Chambers	08.01.001	73,171	7,600	65,571
97	Flow Monitoring and Inspections	Lance Clark	08.01.004	17,735	3,819	13,916
98	Pipeline Assessment, CCTV Inspection and Cleaning - Annual Contract	Lance Clark	08.01.006	17,250	0	17,250
99	ROW Clearing - Annual Contract	Lowell Chambers	08.01.007	6,050	0	6,050
100	Fulton County Camp Creek Reserve Capacity	Rob Hunter	04.16.356	12,210	0	12,210
101	Inman Park	Lance Clark	05.95.001	1,510	1,510	0
102	Rock and Vine Streets Sewer Project	George Barnes	05.92.004	67,330	12,320	55,010
103	Butler Street/Highland Ave Trunk Relief Phase I	George Barnes	05.94.001	5,000	0	5,000
104	Butler Street/Highland Ave Trunk Relief Phase II & III	George Barnes	05.94.002	112,500	0	112,500

*Amounts in thousands of dollars

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Page	Project Name		Project Manager	WBS No.	Project Total	Funded Total	Unfunded Total
105	Boulevard Trunk Outflow Management		Lance Clark	05.92.006	675	0	675
106	Riverside Outfall Capacity Relief		Rob Hunter	04.17.320	7,683	0	7,683
107	Reserve for Appropriations - First Amended Consent Decree (SSO)		Calculation	99.02.006	71,597	0	71,597
	Subtotal	First Amended Consent Decree (SSO)			1,749,201	245,667	1,503,534
Regulatory or Contract Compliance							
108	RM Clayton - Adjacent Property Acquisition		Larry Harrod	02.17.021	2,711	0	2,711
109	RM Clayton - Compliance Upgrades		Larry Harrod	02.17.900	13,601	2,457	11,144
110	RM Clayton - Grit Removal		Larry Harrod	02.17.940	4,446	0	4,446
111	South River - Clarifier Upgrades		Paula Days	02.18.900	2,318	2,318	0
112	South River Energy System Reliability Improvements		David Winters	02.14.040	1,100	0	1,100
113	South River - Effluent Main Re-aeration Facility		Paula Days	02.18.915	1,725	375	1,350
114	Intrenchment Creek WRC General Improvements		Paula Days	02.20.902	1,677	1,677	0
115	Flint River Pump Station Replacement		John Reinhard	03.05.002	10,000	0	10,000
116	Flint River Force Main Phase I		John Reinhard	09.02.901	9,000	0	9,000
117	Flint River Force Main Phase II		John Reinhard	09.02.902	2,920	0	2,920
118	Flint River Force Main Phase III		John Reinhard	09.02.903	12,000	0	12,000
119	Watershed Monitoring Program		Tracy Hillick	07.03.001	8,583	2,813	5,770
120	Bio-Solids Management Services		Marcia Hurd-Wade	07.79.001	41,848	18,148	23,700
121	Watershed Master Plan		Jerri Russell	05.28.001	3,500	3,500	0
122	Reserve for Appropriations - Regulatory or Contract Compliance		Calculation	99.02.007	4,207	0	4,207
	Subtotal	Regulatory or Contract Compliance			119,636	31,288	88,348
System Renewal or Operational Reliability							
123	Utoy Creek - Maintenance Building Improvements		Marcia Hurd-Wade	02.15.004	1,962	0	1,962
124	RM Clayton - Landscaping Improvements		Rudolph Chen	02.17.020	3,500	3,500	0
125	RM Clayton - Primary Area Upgrades		Larry Harrod	02.17.050	9,877	0	9,877
126	RM Clayton - Building/Tunnel/Utility Upgrades		Larry Harrod	02.17.051	7,988	0	7,988
127	RM Clayton - Watershed Staff Offices Improvements		Larry Harrod	02.17.010	5,000	0	5,000
128	Utoy Creek - Small Capital Projects		David Winters	02.19.904	6,854	0	6,854

*Amounts in thousands of dollars

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Clean Water Atlanta Initiative				Wastewater		
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Page	Project Name	Project Manager	WBS No.	Project Total	Funded Total	Unfunded Total
129	South River WRC Effluent Pumping Station Upgrade	John Reinhard	02.18.903	6,000	0	6,000
130	South River - Upgrade of Solids Handling at Headworks	John Waddington	02.18.904	792	792	0
131	South River - Small Capital Projects	John Waddington	02.18.901	7,976	0	7,976
132	Intrenchment Creek - Small Capital Projects	Paula Days	02.20.900	6,271	0	6,271
133	Small PS Upgrades (Highlands, Niskey Lake 1 & 2, and Cascade Road)	John Reinhard	03.03.050	254	0	254
134	Pump Station - Bar Screen Replacement (BR&PL)	John Reinhard	03.06.905	2,000	0	2,000
135	Aquarium - CSO Separation	Lance Clark	05.95.005	1,580	1,580	0
136	Repair and Replace Roofing - Annual Contract	John Reinhard	08.01.013	2,200	0	2,200
137	Renovate James Walker Sewer Facility	Bob King	07.05.001	3,000	3,000	0
138	AHA - Harris Redevelopment - Phase 2a	Rob Hunter	05.96.011	3,290	0	3,290
139	AHA - Harris Redevelopment - Phase 2b	Rob Hunter	05.96.012	3,965	0	3,965
140	AHA - Harris Redevelopment Phase 3	Joe Basista	05.96.013	654	0	654
141	AHA - Perry Off-Site Redevelopment	Rob Hunter	05.96.009	3,900	0	3,900
142	AHA - Capital Redevelopment Phase 1	Joe Basista	05.96.014	1,334	0	1,334
143	AHA - Capital Redevelopment Phase 2	Joe Basista	05.96.015	4,035	0	4,035
144	AHA - Capital Redevelopment Phase 3	Joe Basista	05.96.016	1,353	0	1,353
145	AHA - Grady Redevelopment Phase 1	Joe Basista	05.96.017	1,823	0	1,823
146	AHA - Grady Redevelopment Phase 2	Joe Basista	05.96.018	912	0	912
147	AHA - Grady Redevelopment Phase 3	Joe Basista	05.96.019	912	0	912
148	Reserve for Appropriations - System Renewal or Operational Reliability	Calculation	99.02.008	3,928	0	3,928
	Subtotal	System Renewal or Operational Reliability		91,361	8,872	82,489
	Subtotal	Wastewater		2,620,232	439,070	2,181,162
	Total	Environment		3,476,992	545,364	2,931,628

*Amounts in thousands of dollars

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Clean Water Atlanta Initiative

Department of Watershed Management Capital Improvement Program

Section Environment

Subsection Water

River Intake Erosion Control Improvements

Order	1		
Project Manager	Lee Hunt		
Program	Consent Order (Water)	Start Date	2005
Type	New	End Date	2007
Project Category	Source of Supply	WBS No.	98.08.033
NPU	A,C,D	Council	8,9
Facility	River Intake	Status	Funded

Description

This Project consists of re-constructing the two original dam and spillway sills. One is immediately downstream of the raw water intake from the Chattahoochee River and the other sill is on the west side of Defoor's Island, upstream of the intake. This sill reconstruction will maintain a consistent water pool elevation and secure a constant supply of at least 222 MGD through the intake structure and into the raw water pumps. Should this pool elevation or pool volume degrade, the raw water supply system could become limited in its capacity to reliably provide the raw water flow needed for the drinking water production facility. Along with the sill reconstruction, bank stabilization of the Defoors Island bank slope and dredging of the intake pool is included.

Justification

This work is Consent Order driven. EPD Consent Order No. EPD-WS-684 (dated December 9, 1997) included Condition Item No. 10, requiring the reporting and completion of certain CIP projects designed to improve water supply and treatment reliability. This is one of the remaining projects required to satisfy that Consent Order.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
10,700	10,700	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Section Environment

Subsection Water

Hemphill & Chattahoochee WTP Improvements

Order	41		
Project Manager	Lee Hunt		
Program	Consent Order (Water)	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Multiple Treatment Facilities	WBS No.	98.02.034
NPU	A,C,D,E,K,L	Council	2,3,7,8,9
Facility	Various	Status	Funded

Description

The improvements include:

1. Hemphill-flocculation basin & control valve replacement;
2. Hemphill-add new lime slurry tank and feed lines;
3. Hemphill-replace filter rate of flow (ROF) valves;
4. Hemphill-replace all filter valves;
5. Hemphill-replace all filter valve actuators and distribution panels;
6. Hemphill-upgrade chemical feed flow pacing system;
7. Chattahoochee-upgrade chemical feed flow pacing system;
8. Chattahoochee-replace 13 filter electrical distribution panels;
9. Chattahoochee-replace all filter valves;
10. Chattahoochee- replace influent valve and Venturi;
11. Chattahoochee-replace flocculator mechanisms;
12. Chattahoochee-sedimentation basin repair;
13. replace 24" bypass at chemical house;
14. HTP-replace ring gears in basins;
15. Chattahoochee Sedimentation Basin Clarifiers;
16. Hemphill Sedimentation Basin Clarifiers;
17. Hemphill-replace lime feed lines;

This work is in progress with an expected completion of late 2005/early 2006.

Justification

This work is Consent Order driven. EPD Consent Order No. EPD-WS-684 (dated December 9, 1997) included Condition Item No. 10, requiring the reporting and completion of certain CIP projects designed to improve water supply and treatment reliability. This is one of the remaining projects required to satisfy that Consent Order.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
33,129	33,129	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Section Environment

Subsection Water

Fairburn Road Pump Station & Water Mains

Order	51		
Project Manager	Lee Hunt		
Program	Consent Order (Water)	Start Date	2004
Type	New	End Date	2007
Project Category	Pump Stations	WBS No.	98.03.011
NPU	P,R	Council	11
Facility	Other	Status	Unfunded

Description

Design and construction of a new water re-pump station on Fairburn Rd. along with a new suction main along Fairburn Rd. starting at Campbellton Rd. The discharge main continues along Fairburn and Welcome All Roads to Joilette Rd.

This project consists of the following installations: 1) 48" suction main; 2) 36" discharge main; 3) booster pump station. This station will replace the old station due to the increased demands in the southern area of the distribution system in Fulton County.

Pump Station Description

1. 19 MGD Booster Pump Station with 4 Pumps (2 – 6.5 mgd pumps, 2 – 3 mgd pumps, and new station facility).

Water Main Descriptions

1. 18,400 LF of 48" DIP Water Main from Campbellton Road to Ben Hill Road on Fairburn Road and Welcome All road. The route/location is Fairburn Road and Welcome All Road with connections to a) new 30" on Campbellton Road, b) existing 16" and 30" and new 48" on Fairburn Road, c) new 24" on Ben Hill Road, and d) new 24" on Welcome All Road. 2. 6,300 LF of 36" DIP Water Main from Ben Hill Road to Jailette Road along Welcome All Road. The Route/Location is Welcome All Road with the connections to a) new 48-inch on Welcome All Road, b) existing 16-inch on Welcome All Road, and c) existing 24-inch on Scarborough Road.

Justification

This work is Consent Order driven. EPD Consent Order No. EPD-WS-2072 (dated March 25, 2003) included Condition Item No. 4, requiring the reporting and completion of certain CIP projects designed to improve distribution water supply reliability. This is one of the remaining projects required to satisfy that Consent Order. This project brings additional transmission main and re-pumping station which improves the consistency and reliability of the distribution system pressure.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
38,682	0	38,682	38,682	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Section Environment

Subsection Water

Koweta Road Pump Station & Water Mains

Order	53		
Project Manager	Lee Hunt		
Program	Consent Order (Water)	Start Date	2004
Type	New	End Date	2006
Project Category	Pump Stations	WBS No.	98.03.013
NPU	P	Council	11
Facility	Other	Status	Unfunded

Description

Design and construction of a repump station having a capacity of 22 MGD with two 5 MG water storage tanks. Pumping Station - Proposed 1500 sq.ft. building housing 4 centrifugal pumps rated for 3, 5, 7, and 7 mgd. The first pumps installed to meet the 15 MGD capacity would be the 3, 5, and 7 mgd. A future 7 mgd pump will have space available in the building. Station suction and discharge piping is 30" DIP. This facility serving the southwest area of the 1175 pressure zone will be located at the intersection of Koweta Road and Campbellton – Fairburn Road.

Two proposed 5 MGD ground storage tanks are proposed for the Koweta Road Pumping Station site. Tank construction is proposed to be prestressed concrete tanks. The piping that connects the tanks to the station is 30" DIP. Chlorine Booster Station - provides a remote booster station for adding disinfectant into the distribution system when residuals are low. Low chlorine levels in the distribution system could result in EPD violations.

11,700 LF of 24" DIP Water Main from the Koweta facility to Roosevelt Highway. Route/Location is Koweta Road and Campbellton-Fairburn Road with connections at a) 24" Koweta discharge, b) existing 24" on Koweta Road, and c) existing 16" on Roosevelt Highway. 18,100 LF of 42" DIP Water Main from Mason Road, southwest to Campbellton-Fairburn Road. Route/Location is Roosevelt Highway with connections at a) Existing 24-inch on Roosevelt Highway, b) Existing 3-inch and new 24-inch on Campbellton-Fairburn Road, and c) Existing 16-inch on Roosevelt Highway. 11,500 LF of 36" DIP from Welcome All Road, Southwest to Roosevelt Highway. The Route/Location is Ben Hill Road with connections on a) existing 16" and new 24" on Welcome All Road, b) existing 12" on Ben Hill Road, c) existing 24" and new 30" on Roosevelt Highway. 14,400 LF of 30" DIP from Ben Hill Road to Mason Road. The Route/Location is Roosevelt Highway with connections on a) existing 24" on Roosevelt Highway, b) new 36" on Ben Hill Road, c) existing 24" and new 42" on Roosevelt Highway, and d) existing 24" on Mason Road.

Justification

The existing distribution system has reached capacity in the south portion of the system. New water mains and repump stations are necessary for any future growth and development. This facility is needed to provide adequate service to the southern portion of Fulton County where extensive growth has created large summer demands and a large amount of undeveloped land is available for future growth. The existing wholesale water supply contract with Coweta County requires current delivery of 3 MGD to Coweta County, growing to satisfy a Coweta demand of 20 MGD in 2017. This project provides part of the infrastructure required to deliver this contracted production as well as any additional Atlanta demands in the south area of the county.

This work is Consent Order driven. EPD Consent Order No. EPD-WS-2072 (dated March 25, 2003) included Condition Item No. 4, requiring the reporting and completion of certain CIP projects designed to improve distribution water supply reliability. This is one of the remaining projects required to satisfy that Consent Order. This project brings additional transmission main and re-pumping station which improves the consistency and reliability of the distribution system pressure.

Project	Funded	UnFunded								
Total	Total	Total	2004	2005	2006	2007	2008	2009	2010	2011-14
48,967	0	48,967	6,464	42,503	0	0	0	0	0	0

* Amounts in thousands of dollars

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Hartsfield Pump Station - 4th Pump

Order	54		
Project Manager	Lee Hunt		
Program	Consent Order (Water)	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Pump Stations	WBS No.	98.03.010
NPU	Z	Council	12
Facility	Hartsfield Repump Station	Status	Unfunded

Description

This project includes the following:

1. Install a new 10 MGD pump in the area planned and designated for capacity expansion. The pump station, when originally design included space and piping for the addition of a fourth pump at this station. This work is a fulfillment of that plan.
2. As part of the work, existing controls must be expanded for the fourth pump to tie the fourth pump into the current control scheme. Existing SCADA reliability will be improved in this effort with the combined upgrade of transmission equipment to assure reliable signal and therefore tracking and control.
3. Grounding of electrical cabinets and rotating equipment will be included as part of the proper performance of the work.

Justification

A 4th pump needs to be installed at the facility to ensure reliability, in particular during peak summer months. Failure of one of the existing pumps could create serious pressure problems in the area and at Hartsfield/ Jackson Airport. Required to provide fire protection for the 5th runway burn pit (2500 gpm) and Clayton Co. (1,000 gpm)

This work is Consent Order driven. EPD Consent Order No. EPD-WS-2072 (dated March 25, 2003) included Condition Item No. 4, requiring the reporting and completion of certain CIP projects designed to improve distribution water supply reliability. This is one of the remaining projects required to satisfy that Consent Order. This project brings additional pumping capacity which improves the consistency and reliability of the distribution system pressure.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
397	0	397	397	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Northside and Adamsville Pump Station - I&C and Electrical Renovations

Order	55		
Project Manager	Lee Hunt		
Program	Consent Order (Water)	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Pump Stations	WBS No.	98.08.028
NPU	A,B,C,H,I	Council	8
Facility	Various	Status	Funded

Description

Project will replace all electrical switchgear, motor control centers, instrumentation and control components, wiring and remote communication equipment at both Northside and Adamsville Water Re-pump Stations. This project will enhance the reliability of the system and equipment. New PLC's will be tied into new radio telemetry and the existing tone equipment and signals transmitted through the existing phone lines. This project is funded and in bidding phase now.

Justification

This work is Consent Order driven. EPD Consent Order No. EPD-WS-2072 (dated March 25, 2003) included Condition Item No. 4, requiring the reporting and completion of certain CIP projects designed to improve distribution water supply reliability. This is one of the remaining projects required to satisfy that Consent Order. This project replaces failing existing SCADA equipment and add electrical equipment required for system reliability.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,117	3,117	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Hemphill Reservoir #1 Embankment Repair

Order	92	Start Date	2004
Project Manager	Lee Hunt	End Date	2006
Program	Consent Order (Water)	WBS No.	98.08.029
Type	Renovation	Council	2,3,7,8,11
Project Category	Facilities	Status	Funded
NPU	C,D,E,K,L		
Facility	Hemphill WTP		

Description

Repair of the Hemphill #1 Dam Embankment will allow Reservoir #1 with a storage volume of 180 million gallons to be put back into service. In accordance with the Stage of Georgia Safe Dams Act, all investigation, engineering and construction observation must be performed by an experienced Engineer of Record, acceptable to the State Dams Group.

Justification

Raw water storage capacity is limited because Reservoir #1 is off-line due to problems with the structural integrity of the reservoir's dam. This work is Consent Order driven. EPD Consent Order No. EPD-WS-684 (dated December 9, 1997) included Condition Item No. 10, requiring the reporting and completion of certain CIP projects designed to improve water supply and treatment reliability. This is one of the remaining projects required to satisfy that Consent Order.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
5,000	5,000	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Civil Engineering & Field Inspection Services

Order	111		
Project Manager	Lee Hunt		
Program	Consent Order (Water)	Start Date	2003
Type	New	End Date	2004
Project Category	Annual Contract	WBS No.	08.04.011
NPU	ALL	Council	ALL
Facility	Various	Status	Funded

Description

This project includes project management, engineering and field inspection services for CIP projects specifically identified as required to fulfill outstanding Consent Order requirements. This is an annual services need which will augment existing staff on an as-needed basis to accommodate project administration workload or specialty areas of engineering assistance.

Justification

This project is for outside temporary resources to supplement current City Staffing in the construction management, tracking and observation of various consent order driven CIP projects.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,500	1,500	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Facility Dehumidifiers & Ductwork Installation

Order	112				
Project Manager	Lee Hunt				
Program	Consent Order (Water)	Start Date	2003		
Type	New	End Date	2003		
Project Category	Special Projects	WBS No.	98.08.030		
NPU	A,C,D,E,K,L	Council	2,3,7,8,9		
Facility	Various	Status	Funded		

Description

This project includes the following: 1) replacement of the dehumidifiers at the Chattahoochee River Intake to protect equipment from high moisture and corrosion; 2) replacement of the dehumidifiers in the Settled Solids Facility at Hemphill WTP; and 3) replacement of the Division 1 and 2 dehumidifiers at Hemphill WTP which are currently out of service.

Chattahoochee Water Treatment Plant

1. Chattahoochee River Intake – Replace Dehumidifiers – Replacement of existing non-functional equipment with new dehumidifiers to protect equipment from high moisture and corrosion.

Hemphill Water Treatment Plant

1. Hemphill Settled Solids Facility Dehumidifiers – New dehumidification needs to be installed throughout the facility to prevent damage to equipment.

2. Hemphill Treatment Plant Dehumidifiers, Division 1, 2, & Basin Pump House – Dehumidifiers need to be installed at these facilities to protect the equipment and electrical work from moisture. Existing dehumidification equipment is out of service and is non-repairable.

3. Hemphill Treatment Plant Dehumidifiers, Division 1 – Replacement of the dehumidification equipment in Division 1 is critical for the protection of the newly installed Instrumentation and Control equipment recently installed at the facility. Failure to install the equipment will lead to degradation and failure of the instrumentation and control system recently installed as well as the recently overhauled pump motors.

Justification

This work is required by EPD Consent Order No. EPD-WS-684 (dated December 9, 1997).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,251	2,251	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Reserve for Appropriations - Water Consent Order

Order	624				
Project Manager	Calculation				
Program	Consent Order (Water)	Start Date	2004		
Type	Renovation	End Date	2014		
Project Category	Reserve	WBS No.	98.99.001		
NPU	ALL	Council	ALL		
Facility	Other	Status	Unfunded		

Description

These reserve amounts are established for the Clean Water Atlanta capital projects in the event of significant increases in the scope and cost of identified projects, or for new projects not foreseen at this time that are related to implementation of projects identified in the CIP, or for other justifiable and unforeseen factors. These amounts are in addition to any reserve for appropriations established by the Finance Department related to any bond obligation requirement. This reserve may be funded, as needed, by short term debt instruments, if not funded via bond funds.

Justification

It is prudent to plan for unforeseen project costs at the initial phase of this large and comprehensive capital projects undertaking.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
4,402	0	4,402	2,277	2,125	0	0	0	0	0	0

* Amounts in thousands of dollars

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Back Flow Preventors/Flowmeters - Annual Contract

Order	14		
Project Manager	Lee Hunt		
Program	Regulatory or Contract Compliance	Start Date	2005
Type	Renovation	End Date	2006
Project Category	Multiple Treatment Facilities	WBS No.	08.02.009
NPU	ALL	Council	ALL
Facility	Distribution	Status	Funded

Description

This project is to (1) identify and correct any un-permitted process or sanitary discharges into the storm drain system, (2) install (or replace) meters on all potable supply lines to record all produced and consumed water, and (3) install backflow prevention on each potable water supply connection. These actions are to make the existing facilities compliant with regulations, protect the distribution system from potential contamination, and to record potable water usage to reduce unaccounted for water loss. The City backflow prevention requirements were prepared in accordance with EPD requirements and reviewed and accepted by EPD. This project will make the existing treatment facilities compliant with these approved requirements.

Justification

The State identified points of the potable distribution system at the Chattahoochee WTP which were not properly protected by backflow prevention. These have been corrected. This project is to continue this effort at the remaining facility (Hemphill WTP) and to assure both facilities are fully compliant with backflow prevention requirements.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,263	0	1,263	1,263	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Soil Remediation and Site Closure

Order	15		
Project Manager	Lee Hunt		
Program	Regulatory or Contract Compliance	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Chattahoochee WTP	WBS No.	98.08.039
NPU	A,C,D,E,K,L	Council	2,3,7,8,9
Facility	Various	Status	Unfunded

Description

Prior to 1999, fuel tanks were removed at the Old Chattahoochee Fuel Depot and removed at the Old 14th Street Fuel Depot as well as other sites. During tank removal all surrounding soil conditions were tested, requiring some soils disposal. These two sites were not completed due to lack of funds and extent of soil contamination. This project is required to complete the soil remediation discovered as a result of the tank removal. In addition, this effort includes completing the final closure reports as required by EPD.

Justification

EPD regulatory compliance requires both contamination source removal (tanks have been removed) and contaminated soil removal and replacement. Final certification to EPD that the sites are closed is required. This project will complete all efforts to achieve site closure for all tanks sites.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,970	0	3,970	3,970	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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American Disabilities Act Facility Improvements - Annual Contract

Order	115		
Project Manager	Lee Hunt		
Program	Regulatory or Contract Compliance	Start Date	2005
Type	Renovation	End Date	2006
Project Category	Special Projects	WBS No.	08.02.012
NPU	ALL	Council	ALL
Facility	Various	Status	Funded

Description

Project is to maintain compliance with the Americans with Disabilities Act facilities at 14th Street, Hemphill, and Chattahoochee facilities. The 14 Street Facility was constructed in the 1950's, the Chattahoochee WTP in 1960 and 1972, and the Hemphill WTP was constructed in phases of 1923, 1941 and 1987. All of these facilities were constructed prior to the implementation of the ADA act and remain non-compliant. These improvements are required to meet these federal regulations.

Justification

Several facilities are not currently ADA compliant. An upgrade is required to meet these federal regulations and satisfy staff access regulations.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
650	650	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Water Tank Structural Repair and Painting

Order	117		
Project Manager	Lee Hunt		
Program	Regulatory or Contract Compliance	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Special Projects	WBS No.	98.08.034
NPU	A,C,D	Council	8,9
Facility	Various	Status	Unfunded

Description

This project will provide minor structural repair, surface preparation, and painting of existing water tanks at the following locations: Jett Ferry (2 tanks), Casey Hill (1 tank), Dupree (1 tank), and Pitts Road (3 tanks).

Jett Ferry 1 - 500,000 gal, 1974
 Jett Ferry 2 - 500,000 gal, 1983
 Pitts Road 1 - 2,000,000 gal, 1983
 Pitts Road 2 - 1,000,000 gal, 1984
 Pitts Road 3 - 1,000,000 gal, 1985
 Dupree - 3,000,000 gal, 1987
 Casey Hill Standpipe - surge riser, 1980s

This scope of work includes internal clean, prepare and re-coat as well as external clean and re-coat. Visual external inspection indicates a continuing deterioration of the coating and potential for impact into the structural integrity of the tank. Internal inspection has not been performed within the last three years. However, the same rate or accelerated internal corrosion can be expected as exhibited on the outside. Consideration is included for the potential of minor structural repair to tank wall and supports.

Justification

This project is required as a normal part of infrastructure maintenance to prevent structural degradation due to weather exposure. Failure to re-paint these tanks will result in further degradation and potential impact to structural integrity.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
4,763	0	4,763	0	4,763	0	0	0	0	0	0

* Amounts in thousands of dollars

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Homeland Security

Order 120

Project Manager Marie Shadden

Program Regulatory or Contract Compliance

Type New

Project Category Special Projects

NPU ALL

Facility Various

Start Date 2004

End Date 2008

WBS No. 98.08.047

Council ALL

Status Partially Funded

Description

This project will implement Homeland Security recommendations resulting from a 2003 Vulnerability Assessment of the Drinking Water System.

Design and build required for integrated security systems incorporating video surveillance and monitoring, intrusion detection, fencing and lighting, automated access control with secure gates allowing no tailgating or entrance with exit, SMART card entry and time/attendance, SMART labeling for high value equipment and supplies. Also included is Continuous Water Quality Monitoring for the BDW distribution system and hardening of certain sensitive BDW assets.

Justification

Public law 107-188, June 12, 2002 Public Health Security and Bioterrorism Preparedness and Response Act of 2002. City of Atlanta is responsible for securing the Public Health (through the water utility) against contamination or damage to facilities and capacity by acts of aggression or terrorism.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
28,200	4,000	24,200	700	4,700	4,700	4,700	4,700	4,700	0	0

* Amounts in thousands of dollars

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New Water Meter Installation - Small Meter - Annual Contract

Order 132

Project Manager Lee Hunt

Program Regulatory or Contract Compliance

Start Date 2003

Type New

End Date 2008

Project Category Annual Contract

WBS No. 08.02.005

NPU ALL

Council ALL

Facility Distribution

Status Unfunded

Description

Installation of small water meters between ¾ inch and 2 inch in size, including back flow prevention.026, F002)

Justification

Meter installation for new customers.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
66,000	6,000	60,000	0	6,000	6,000	6,000	6,000	6,000	6,000	24,000

* Amounts in thousands of dollars

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North Area Treatment Plant - Phase 2.5

Order	141		
Project Manager	Lee Hunt		
Program	Regulatory or Contract Compliance	Start Date	2004
Type	New	End Date	2004
Project Category	Payment	WBS No.	98.02.951
NPU	OUTSIDE CITY LIMITS	Council	OUTSIDE CITY LIMITS
Facility	North Area Treatment Plant	Status	Partially Funded

Description

This is the City's portion of the construction cost for the current phase of the North Area Treatment Plant construction funded for 2003. Project includes additional raw water reservoir capacity of approximately 600 MG (to a full capacity of 1BG) and raw water pump station expansion and additional raw water force main capacity.

Justification

The North Area Treatment Plant capacity is shared between Fulton County and City of Atlanta. This phase of the plant is essential in the overall expansion plan. The capacity developed at this plant for the City will alleviate the demand in the north service area (for City) so that existing capacity at Chattahoochee WTP and Hemphill WTP can serve the growing demand in the south service area. The capacity at the North Area Plant also provides capacity redundancy essential for reliable distribution of potable water.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
33,500	20,000	13,500	13,500	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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North Area Treatment Plant - Phase 3.0

Order	142		
Project Manager	Lee Hunt		
Program	Regulatory or Contract Compliance	Start Date	2005
Type	New	End Date	2007
Project Category	Payment	WBS No.	98.02.952
NPU	OUTSIDE CITY LIMITS	Council	OUTSIDE CITY LIMITS
Facility	North Area Treatment Plant	Status	Unfunded

Description

This phase of the North Area Treatment Plant expands the plant capacity to 90MGD, with a 30 MGD expansion to be constructed. The City of Atlanta and Fulton County share equally in the plant operation cost and capacity to provide potable water to service areas in north Fulton County. This added capacity provides relief for the existing City plants and allows these plants to provide expanding demand in the south service areas. This additional capacity gives the operations flexibility and added reliability for meeting demands and challenges caused by unexpected failures.

Justification

The North Area Treatment Plant capacity is shared between Fulton County and City of Atlanta. This phase of the plant is essential in the overall expansion plan. The capacity developed at this plant for the City will alleviate the demand in the north service area (for City) so that existing capacity at Chattahoochee WTP and Hemphill WTP can serve the growing demand in the south service area. The capacity at the North Area Plant also provides capacity redundancy essential for reliable distribution of potable water..

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
20,000	0	20,000	20,000	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Reserve for Appropriations - Regulatory or Contract Compliance

Order	628		
Project Manager	Calculation		
Program	Regulatory or Contract Compliance	Start Date	2004
Type	Renovation	End Date	2014
Project Category	Reserve	WBS No.	98.99.003
NPU	ALL	Council	ALL
Facility	Other	Status	Unfunded

Description

These reserve amounts are established for the Clean Water Atlanta capital projects in the event of significant increases in the scope and cost of identified projects, or for new projects not foreseen at this time that are related to implementation of projects identified in the CIP, or for other justifiable and unforeseen factors. These amounts are in addition to any reserve for appropriations established by the Finance Department related to any bond obligation requirement. This reserve may be funded, as needed, by short term debt instruments, if not funded via bond funds.

Justification

It is prudent to plan for unforeseen project costs at the initial phase of this large and comprehensive capital projects undertaking.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
6,385	0	6,385	1,972	773	535	535	535	535	300	1,200

* Amounts in thousands of dollars

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Intake Pipe Improvements

Order	2		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	Renovation	End Date	2005
Project Category	Source of Supply	WBS No.	08.02.011
NPU	A,C,D	Council	8,9
Facility	River Intake	Status	Unfunded

Description

The primary isolation valve at the river intake currently will not close. In the event of a spill on the river, it is essential to isolate the pump station, wet well, and intake line. To be able to assure reliable water quality, this project includes replacing the 78 inch intake valve and operator as well as replacing the flow measurement device to provide consistent operating controls. The isolation valve also allows for isolating the wet well during high river events, which prevents flooding of the wet well and pump room and damage to essential equipment.

Justification

This project is a high priority as it is essential to protect the existing equipment, necessary to consistently provide raw water for treatment. A high river elevation, without this isolation valve, could cause damage to the pumping equipment and resultant suspension of raw water supply to the treatment facility. Without raw water supply, the City's ability to provide treated drinking water would be compromised.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
653	0	653	653	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Chattahoochee Plant Various Improvements

Order	17		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Chattahoochee WTP	WBS No.	98.08.041
NPU	A,C,D	Council	8,9
Facility	Chattahoochee WTP	Status	Unfunded

Description

The project includes several improvements to the Chattahoochee WTP:

1. Chattahoochee WTP including, replace yard valve controllers, repair leaks at clearwell, replace backwash water pump, replace flow meters, and install new windows at chemical house
2. Chattahoochee Complex Voltage Surge Equipment – Installation of voltage surge equipment to protect electrical circuits and equipment from electrical surges, particularly during pump start-up. Also replace control system UPS to assure constant control power.
3. Chattahoochee Water Treatment Plant Filter/Administration Building Renovation of Filters #1-#13 – Conduct a filter performance study and recommend improvements, and implement. Potential improvements include new media, bottom restoration and modifications and repairs to the filter sweeps
4. Chattahoochee Raw Water Pump Station– Remove the deposition of silt from the raw water pump suction wells, install conveyance system for pump station screens, replace overhead crane in pump room.

Justification

Age of equipment and daily use have resulted in wear and loss of function for various elements within the water treatment plant facility. In accordance with the Consent Order intent of improving system reliability, this work is required to provide a consistent, functioning facility capable of reliable water production.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
4,755	0	4,755	4,755	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Facility Roof Improvements

Order	18		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Special Projects	WBS No.	98.08.043
NPU	A,C,D	Council	8,9
Facility	Chattahoochee WTP	Status	Unfunded

Description

The following structures have roofs in need of replacement. The existing structures have built-up roof systems which have deteriorated over the years. Several roofs show distinct signs of aging and have developed leaks. The amount of repair would likely exceed the cost for replacement and still would not markedly extend the life of the roofing, so entire removal and membrane replacement is included.

At the Chattahoochee WTP:

- Filter Building
- Administration Building
- Settled Solids Building
- Chemical House
- Raw Water Pump Station
- Raw Water Intake Building

At the Hemphill WTP:

- The 1941 Filter Plant

At the 14th Street Facility:

- The Engineering and Construction Building
- The Maintenance Building

The Northside Pump Station

The Adamsville Pump Station

Justification

These facilities are in need of re-roofing to extend the life of the structure, eliminate the source of water damage and prevent unsafe environmental conditions for employees. Several of these facilities have internal damage and these repairs are required to prevent further degradation of necessary structures.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
800	0	800	800	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Hemphill Plant Various Improvements

Order	33		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Hemphill WTP	WBS No.	98.08.042
NPU	C,D,E,K,L	Council	2,3,7,8,10
Facility	Hemphill WTP	Status	Unfunded

Description

Project includes a variety of smaller plant improvements to be performed at the Hemphill WTP including:

1. Hemphill Treatment Plant – Replace Electrical Distribution Panels Division I, II, and Basin Pump House.
2. Hemphill Raw Water Reservoir – Dredging and removal of silt buildup in reservoir #2 resulting from the last ten years deposition.
3. Hemphill Raw Water Reservoir Bathometric/Topographic Study and Draw-down Curve – Perform bathometric and topographic survey to ascertain the true topography of the reservoir and determine the actual capacity of raw water storage. Following completion of the survey determine the actual draw-down rate versus elevation of water level for more efficient use.
4. Hemphill Treatment Plant - Repair thickener concrete surfaces; replace sludge ejectors below clarifiers and thickeners; and replace thickener drives (No.3,4 and 5).
5. Hemphill Treatment Plant – Replace flow meters, replace valve actuators, purchase and install new backwash booster pumps, implement miscellaneous steam plant improvements.

Justification

Age of equipment and daily use have resulted in wear and loss of function for various elements within the water treatment plant facility. In accordance with the Consent Order intent of improving system reliability, this work is required to provide a consistent, functioning facility capable of reliable water production.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,652	0	2,652	2,652	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Downtown Elevated Storage Tanks

Order	42		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2007
Type	New	End Date	2009
Project Category	Multiple Treatment Facilities	WBS No.	98.05.003
NPU	E,M,N,V,W	Council	1,2,3,5,6
Facility	Distribution	Status	Unfunded

Description

This project is to add a 2 million gallon elevated storage tank downtown at an already existing city-owned site. If economically beneficial, the Pitts Road tank (de-commissioned) will be relocated to this site. Pressure in the downtown area is provided by the continuous operation of the new Hemphill Electric Pump Station. In the event of temporary power outage, the tank will serve to continue supply while the pump station is brought back on line.

Justification

Partial lost of supply capabilities reduces the ability of the distribution system to maintain required pressure. Storage provides necessary time to correct emergency conditions such as equipment failure or loss of power without disrupting service. This project will provide uninterrupted service to the downtown area in event of short-term power failure at Hemphill Pumping Station.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
4,500	0	4,500	0	0	0	647	3,853	0	0	0

* Amounts in thousands of dollars

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Adamsville Pump Station & Main Improvements

Order	56		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2006
Type	Renovation	End Date	2008
Project Category	Pump Stations	WBS No.	98.03.009
NPU	H,I	Council	9,10
Facility	Adamsville Tank and Repump Station	Status	Unfunded

Description

This project includes installation of an additional 15 MGD pump, replacing the venturi meter at Adamsville and Northside, and the water main from the Chattahoochee plant to Adamsville. (D024, D025, C009)

Adamsville Pumping Station:

1. Add a new 15 mgd pump at the Adamsville Pumping Station to address low pressures in the southwest area and to refill the Stonewall tank and meet demand in Coweta Co. and South Fulton Co. The upgraded pumping station will have one 10 mgd pump, two 15 mgd pumps, and one 20 mgd pump.
2. Existing pumping station building needs to be expanded to house the new 15 mgd pump.
3. Replace the venturi meter at Adamsville Pumping Station.

Water Main Improvements:

30,300 LF of 48" DIP from Chattahoochee WTP to Adamsville Pumping Station. The Route/Location is Bolton Road with connections at the Chattahoochee WTP discharge and the existing 42" at the Adamsville Pumping Station.

Justification

Growth of the system consumer base has stressed the existing distribution system in the southwest portion of the service area. Ability to continue to provide adequate pressure and emergency fire flows depend on increasing the distribution system capacity with these improvements. System reliability in South West to meet existing demand is enhanced by this project. See also Koweta Rd. Pump Station.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
30,310	0	30,310	0	4,634	25,676	0	0	0	0	0

* Amounts in thousands of dollars

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Glenridge Booster Pump Station

Order	57		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	New	End Date	2009
Project Category	Pump Stations	WBS No.	98.03.003
NPU	OUTSIDE CITY LIMITS	Council	OUTSIDE CITY LIMITS
Facility	Collection	Status	Unfunded

Description

The old station at this site was removed from service in 1993 following flooding and severe damage to the below grade structure. This project provides for the construction of the station above grade and a capacity of 14 MGD. This station would be located near the intersection of Abernathy Road and Glenridge Drive and would serve as a backup in the event of the loss of the Atlanta-Fulton County Plant or the 48" transmission main supplying this area. This project is replacing the pump station facility and function which previously existed. Repair of the damaged facility was not viable as it was already aged and a new facility was more cost effective than repair.

Justification

In accordance with the Consent Order intent of improving system reliability, this work is required to provide a consistent, functioning system capable of reliable water delivery. The hospitals in this service area rely on this consistent water supply and water pressure. An uninterrupted supply is crucial to maintaining service to these hospital facilities.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,851	0	1,851	0	181	1,670	0	0	0	0	0

* Amounts in thousands of dollars

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Distribution System Hydraulic Model Update

Order	71		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	New	End Date	2005
Project Category	Transmission & Distribution	WBS No.	98.04.024
NPU	ALL	Council	ALL
Facility	Distribution	Status	Partially Funded

Description

This project includes a software update for the existing Water Bureau hydraulic model and include model calibration by field measurement.

This project will permit the updating of the database in the hydraulic model with current and more recent population data (2000 Census Data) to permit more reliable and accurate system demand forecasting necessary as a planning tool for system improvements as well as establishing budgetary amounts and time periods for such evaluations.

Justification

The hydraulic model developed by the COA needs to be updated periodically due to growth in the system since 1995 and assumptions made during the preparation of the model need to be validated prior to using the model as a planning and design tool. Without an up to date model, the ability to use the model to find effective and cost effective up-grade plans is seriously compromised.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
397	397	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Raw Water Transmission Mains

Order	72		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2006
Type	New	End Date	2009
Project Category	Transmission & Distribution	WBS No.	98.04.007
NPU	A,C,D,E,G,K,L	Council	2,3,7,8,9
Facility	Distribution	Status	Unfunded

Description

The raw water transmission mains consist of cast iron mains of 30 inch, 36inch, and 48 inch size, and a steel 72-inch main. The three cast iron mains are approaching 100 years old and are reaching the end of their reasonable service life. This effort will include inspection of these three mains, but it is anticipated that they will require replacement. The 72-inch main is constructed from steel pipe with welded bell and spigot joints. The 72-inch main has had several failures and must be operated within certain pressure constraints as well as shutdown/startup restraints. Even though the 72 inch is only 26 years old, it is desired to replace the 72-inch main to ensure the reliability of the system.

This project is for the design, and construction of two new waterlines (54 or 60 inch) to replace the four existing raw waterlines. The three mile supply route will include isolation valves, air releases, road crossings and surge protection.

Justification

Raw water piping system requires corrective action to reduce the possibility of a major service disruption. Age of the system requires scheduled replacement as features reach the end of their service life.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
49,578	0	49,578	6,644	26,000	16,934	0	0	0	0	0

* Amounts in thousands of dollars

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South-West Main Improvements

Order	73		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	Renovation	End Date	2008
Project Category	Transmission & Distribution	WBS No.	98.08.024
NPU	H,I,P,R,S,T,V,X	Council	4,9,10,11,12
Facility	Distribution	Status	Unfunded

Description

This project includes improvements to the 30" water main from Hemphill to Ben Hill and to secondary mains.

Water Mains – Southwest region of the distribution system:

1. 34,000 LF of 30" DIP Water Main from the Hemphill-Hartsfield Connector to Fairburn Road. The Route/Location is Deckner Avenue, Sylvan Road, Arden Avenue, Lee Street, and Campbellton Road with connections on a) new 60-inch on Allene Avenue, b) existing 20-inch on Landrum Drive, and c) existing 16 and 30-inch and new 48-inch on Fairburn Road.
2. 9,200 LF of 54" DIP Water Main from Adamsville Pump Station to Benjamin Mays Drive on Martin Luther King Drive and Fairburn Road.
3. 19,600 LF of 48" DIP Water Main from Benjamin Mays Drive to Campbellton Road on Fairburn Road and Austin Road.

Justification

Growth of the system consumer base has stressed the existing distribution system in the south service area. Ability to continue to provide adequate pressure and emergency fire flows relies on increasing the distribution system capacity with these improvements. This work is in accordance with the August 1995 Distribution Master Plan.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
27,484	0	27,484	0	27,484	0	0	0	0	0	0

* Amounts in thousands of dollars

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Transmission Main - Hemphill South

Order	74		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	New	End Date	2009
Project Category	Transmission & Distribution	WBS No.	98.04.003
NPU	C,D,E,G,J,K,L,M,S,T,V,X,Y	Council	1,2,3,4,7,8,9,10,12
Facility	Distribution	Status	Unfunded

Description

This project is the installation of 36" through 60" water mains from Hemphill WTP south to the airport, in accordance with the August 1995 Distribution Master Plan:

Transmission Mains;

24,700 LF of 60" DIP Water Main from Hemphill WTP to Airport and Deckner Avenue on Chestnut Road, Lee Street, and sylvan Road.

5,500 LF of 60" DIP Water Main from Deckner Avenue to Fair Drive on Deckner Avenue and Stewart Avenue.

32,200 LF of 36" DIP Water Main from Fair Drive to Hartsfield Pump Station on Lakewood Avenue, Springdale Road, North Avenue, Raney Avenue, Airport Loop Road, and a Non-Licensed Vehicle Road.

Justification

The current distribution system infrastructure is not sufficient for the demand occurring and the anticipated demand. These pipelines are part of the overall plan to provide reliable pressure and supply to the south/southwest area in consort with the Hemphill WTP improvements and the additional pump at the Hartsfield Pump Station. In accordance with the Consent Order intent of improving system reliability, this work is required to provide a consistent, functioning system capable of reliable water delivery to all customers.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
37,974	0	37,974	0	5,547	32,427	0	0	0	0	0

* Amounts in thousands of dollars

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North Area Main Improvements

Order	75		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2007
Type	Renovation	End Date	2009
Project Category	Transmission & Distribution	WBS No.	98.04.019
NPU	A,B,C,D	Council	8,9
Facility	Distribution	Status	Unfunded

Description

Improvements to the 26", 16", and 12" water mains along Spalding Drive and Peachtree Dunwoody Road.

Water Mains

- 1,300 LF of 12" DIP between Peachtree-Dunwoody Road west to the Johnson Ferry Road Fork. The Route/Location is Johnson Ferry Road with connections at a) existing 12" on Johnson Ferry Road, b) existing 12" and new 16" on Peachtree-Dunwoody Road, and c) existing 8" and 16" on Johnson Ferry Road.
- 1,900 LF of 12" DIP. The Route/Location is Mount Vernon Highway with connections at a) 24" Mount Vernon Tank Draft/Fill line and b) 12" on Mount Vernon Highway.
- 19,100 LF of 16" DIP from Spalding Drive, south to Johnson Ferry Road. The Route/Location is Peachtree-Dunwoody Road with Connections at a) new 36" on Spalding Drive, b) Existing 12" on Peachtree-Dunwoody Road, and c) existing 12" and new 12" on Johnson Ferry Road.
- 16,900 LF of 30" DIP from the Chattahoochee WTP to the Northside Pumping Station. The Route/Location is Moores Mill Road with connections at a) the Chattahoochee WTP discharge and b) the existing 30" at the Northside Pumping Station.
- 34,000 LF of 36" DIP from Pitts Road, southwest to Mount Vernon Highway. The Route/Location is Spalding Drive, Dalrymple Road, Roswell Road, Abernathy Road, River Valley Road, and Riverside Drive with connections at a) new 48" on Spalding Drive, b) existing 16" on Pitts Road, c) existing 24" on Spalding Drive, d) new 16" on Peachtree-Dunwoody Road, e) existing 12" on Powers Ferry Road, and f) existing 24" on Mount Vernon Highway.
- 58,500 LF of 48" DIP from the Atlanta-Fulton County Water Treatment Plant (AFCWTP) on Pitts Road. This line provides redundancy to assure reliable water delivery from the AFC WTP.

Justification

Increased consumer usage requires expansion of the transmission and distribution system to meet consumer demands and provide less risk on providing adequate fire flow protection in certain areas of the system. In accordance with the Consent Order intent of improving system reliability, this work is required to provide a consistent, functioning system capable of reliable water delivery. These mains are infrastructure improvements, planned per the Distribution Master Plan, to improve current reliability and to meet future demands.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
50,561	0	50,561	0	0	0	6,453	44,108	0	0	0

* Amounts in thousands of dollars

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Pipeyard Substation and Central Warehouse

Order	93		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	New	End Date	2006
Project Category	Facilities	WBS No.	98.02.035
NPU	D,G	Council	9
Facility	Pipe Yard	Status	Funded

Description

Design, and construct a new central warehouse facility for Department of Watershed supplies and materials. This project is for the building only.

For the Water Bureau, this project provides a substation facility for pipe-laying operations, maintenance, and materials stockpile, including a Central Warehouse.

This project includes participation from Wastewater Collections and Operations. The facility will co-habitate in the constructed facility, creating more efficient use of services. The companion project for Wastewater is for the property acquisition – WBS No. 07.05.001.

Justification

Much of the storehouse space was reassigned under UWSA. A central facility will allow for better efficiency and accountability.

1. Central Warehouse will consolidate materials to support Bureau of Water Distribution and Maintenance activities.
2. This project will allow for more efficient distribution of materials as well as greater accountability of the inventory.
3. Currently crews are located at different areas. The plan is to house them at Peyton Rd. for dispatching purposes.
4. Central Warehouse Facility – Design and construct new central warehouse to centralize stock and inventory for control and management of inventory. Structure shall be pre-engineered metal building with all related site improvements. Structure will provide approximately 17,000 square feet of space.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,000	2,000	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Water Laboratory and Water Works Lodge Renovation

Order	95		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Facilities	WBS No.	98.08.031
NPU	A,C,D	Council	8,9
Facility	Various	Status	Unfunded

Description

The construction of the new Hemphill WTP control room will displace current laboratory functions. There is a plan to centralize those services to improve efficiency, cross-train personnel and maximize use of lab equipment. The river intake building was constructed in the 1960s with the intent of utilizing floor space for various Water Bureau functions. This space is now available for renovation for the purpose of centralizing all Water laboratory needs. A renovation of this functional facility is more cost effective than new construction.

This project also includes the renovation of two 1920s era structures:

1. The Water Works Lodge has deteriorated and requires a new joist and roofing replacement to be fully usable.
2. The Lodge House requires renovation to be converted to a conference center and updated appliances and facilities.

Justification

Multiple locations for laboratory analysis and pilot plant operation increases operations manpower and cost. This project is needed to centralize the water related laboratory services and the pilot plant study program. Current available space and usage is much more cost effective using the current lab area for Control Room expansion and renovating the river intake building as a laboratory.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
5,850	0	5,850	5,850	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Water System Plant Maintenance Building

Order	96		
Project Manager	Jimmy Gragg		
Program	System Renewal or Operational Reliability	Start Date	2007
Type	New	End Date	2009
Project Category	Facilities	WBS No.	98.08.048
NPU	A,C,D	Council	8,9
Facility	Various	Status	Unfunded

Description

In the construction sequence for Nancy Tunnel, the Chattahoochee Circle maintenance offices are being demolished and are temporarily being relocated to trailers. When the tunnel is completed in 2007, these facilities will require replacement to house maintenance staff and supplies. A facility of approximately ten thousand square feet is estimated to be constructed in the area currently consumed by construction trailers.

Justification

This project is replacement of facilities removed for construction access. There is no other CIP project intended to replace this facility.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,884	0	3,884	0	0	0	380	3,504	0	0	0

* Amounts in thousands of dollars

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Automation of Hemphill and Chattahoochee Treatment Plants

Order	113		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Special Projects	WBS No.	98.08.037
NPU	A,C,D,E,K,L	Council	2,3,7,8,9
Facility	Various	Status	Unfunded

Description

Provide instrumentation improvements at the Hemphill and Chattahoochee Treatment Plants for a flow pace type of operation. These systems are required to create a fully integrated operator supervised control system. Each sub-system (chemical feed and process train) will be fully automated and allow for operator input and control from remote operation control room. On-site SCADA communication will provide for remote monitoring of the process and allow for adjustment of setpoints to maintain water production and quality while diminishing the labor and staff requirements for operation.

This project includes the replacement of the existing distribution and treatment plant communication systems throughout the water distribution system. A consistent method of communication will link Central Control with each distribution site (re-pumping and storage tanks) and with each treatment facility.

A portion of related work has been started under the Northside/Adamsville Contract – WBS No. 98.08.028. Both portions are required for a full and complete automation system serving treatment and distribution facilities.

Justification

As presently configured, the plants are primarily manually operated. Automation of these facilities will allow the plant to be controlled in response to treatment needs without the current level of manpower. This level of control will insure high water treatment standards are obtained. It will also guard against excess chemical usage due to inefficient overdosing conditions.

This approach will standardize the equipment throughout the system for improved long term maintenance improvements, as well as enhance reporting capability for regulatory and contract purposes. Automation can provide the ability to forecast chemical purchases, and provide trending analysis of chemical to predict potential improvements to the type, order volume

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
10,000	0	10,000	10,000	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Electrical Switchgear Replacement

Order	114		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Special Projects	WBS No.	98.08.038
NPU	A,C,D,E,K,L	Council	2,3,7,8,9
Facility	Various	Status	Unfunded

Description

Install voltage surge equipment at Chattahoochee and replace the outdoor switchgear at Hemphill at 2 locations: adjacent to the main Georgia Power electrical substation and adjacent to the Chemical House. Original equipment was installed in 1960s and warrants replacement to improve reliability and personnel safety.

Hemphill Treatment Plant Switchgear Upgrade – Upgrade existing outdoor switchgear in the Hemphill 2400v distribution system. Replacement is required at 2 locations; adjacent to the main Georgia Power electrical substation (six circuit breaker lineup) and adjacent to the Chemical House (seven circuit breaker lineup). Original equipment was installed in 1960s and warrants replacement to improve reliability and personnel safety.

This work includes a short circuit study to evaluate the potential interferences caused by a single ground fault. This study is designed to identify potential domino effects of ground faults and recommend protective devices to isolate any failures and limit damage. Added loads over the years without change to the existing distribution equipment may have created an unstable operation condition of the electrical equipment. A short circuit study will identify these shortcomings in protection and recommend corrective measures.

Justification

Electrical equipment standards have increased since the subject equipment was installed, leaving these units below present day standards. Voltage surge protection is needed on all units to guard against loss of water production to due voltage spikes that happen periodically. Switchgear for these service voltage units wear out over time due to heat generation and environmental corrosion.

Several outdoor switchgear sets require replacement or upgrades in order to maintain safe power delivery.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,700	0	1,700	168	1,532	0	0	0	0	0	0

* Amounts in thousands of dollars

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Sludge Belt Presses

Order	116		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	New	End Date	2006
Project Category	Special Projects	WBS No.	98.04.017
NPU	A,C,D,E,K,L	Council	2,3,7,8,9
Facility	Various	Status	Unfunded

Description

This project includes the design, construction and installation of new belt press dewatering facilities at both Hemphill WTP and Chattahoochee WTP.

1. At the Hemphill WTP, the existing plate and frame presses are nearing the end of their useful life as demonstrated by the high cost of operation and the scarcity of replacement parts. As such, two new belt presses (and support facilities) are included in this project to replace the plate and frames. These belt presses are less energy, less chemical and less labor intensive.
2. At the Chattahoochee WTP, two new belt presses are also planned, complete with additional piping and support facilities such as chemical feed tanks and piping. Also at Chattahoochee, a pipeline to transfer sludge to the RM Clayton facility will be included as a backup option for sludge treatment. Chattahoochee WTP is currently using a test belt press which has shown good results for cake dryness and capacity to meet WTP sludge production.

Justification

Operations and maintenance of the plate and frame units is cost prohibitive. Maintenance can require spare parts that are not readily available, and in some cases repair require custom fabrication. The plate and frame technology has been replaced by more efficient sludge dewatering by belt press. These belt presses will decrease lime usage, decrease operating labor and energy costs. The satisfactory performance of these belt presses has been demonstrated on Chattahoochee sludge dewatering for a year.

A permanent installation is needed to improve process reliability and operation costs for the Hemphill plant. The Chattahoochee plant may evaluate belt press installation as well as discharge to the RM Clayton plant via sludge pipe line for final dewatering and disposal.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
5,500	0	5,500	5,500	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Facility HVAC Improvements - Hemphill and Chattahoochee

Order	118		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Special Projects	WBS No.	98.08.036
NPU	A,C,D,E,K,L	Council	2,3,7,8,9
Facility	Various	Status	Funded

Description

This project includes the following HVAC replacements: 1) at the filter building; 2) replacement of the River Intake HVAC system; 3) at the chemical house; 4) at the filter and admin buildings; 5) at the Settled Solids Facility control room. (K004, K015, K022, K026, K027)

The existing heating systems at these facilities are not operational. This project also includes various HVAC Improvements at Hemphill Div. #1, #2, and #3 heaters and the Hartsfield re-pump station. (B054, K038, K101)

1. Replacement of the existing air conditioning system at the Chattahoochee Plant. Needs to be replaced due to age and inefficiency as well as condition.
2. Replace the existing out-of-service steam heat system which has not worked in several years. Necessary for the protection of equipment as well as for employee work environment.
3. Hemphill Settled Solids Division III Heat – Heat needs to be installed in Division III to protect equipment and pipes from freezing.
4. Hemphill Treatment Plant Heating Division I, II and Basin Pump House – Install heaters in these facilities to protect from freezing.

Justification

Existing HVAC units are beyond their useful life. Adequate heating and air conditioning is needed to eliminate personnel grievances, protect process piping from failure (freezing) and protect process equipment.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,251	0	2,251	0	2,251	0	0	0	0	0	0

* Amounts in thousands of dollars

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Asset Management System

Order	121		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	New	End Date	2005
Project Category	Special Projects	WBS No.	08.04.010
NPU	ALL	Council	ALL
Facility	Various	Status	Unfunded

Description

This project is to initiate the integration of the information currently being collected by the maintenance management systems (Maximo and Hansen) into an operational management system that will allow the Watershed Department to plan for ongoing renewal and extension of the City's existing assets. This system will allow the Department to optimize the maintenance periods for various assets (e.g. balance cost with risk) and to more evenly distribute the cash flow necessary for renewal and extension activities.

This project will provide an annual accounting of the assets of the Bureau of Drinking Water by performing an annual asset inventory determining the dollar value of equipment and facilities. This is a necessary function to be able to provide the true dollar value in the event additional bonds are to be sold as well as maintains an accurate accounting on an annual basis.

Project will provide software, training, data gathering, and data input of Bureau of Water assets, both above and below ground. Provide various reports of assets values and trending to assist with prioritizing CIP and maintenance projects.

Justification

Under GASB 34, all public works assets are required to be inventoried and given an asset value. The inventorying of these assets will require extensive work on the part of engineering and operation staff familiar with sites. Failure to comply with GASB 34 would dramatically affect the City's ability to obtain bonds. This system will allow the Department to optimize the maintenance periods for various assets (e.g. balance cost with risk) and to more evenly distribute the cash flow necessary

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,985	0	1,985	1,985	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Comprehensive MOM Plan Development & Implementation

Order	123		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	New	End Date	2006
Project Category	Special Projects	WBS No.	98.10.001
NPU	ALL	Council	ALL
Facility	Various	Status	Unfunded

Description

Develop and implement a comprehensive management, operations, and maintenance plan for the Bureau of Drinking Water.

Justification

Project will support optimization and of Drinking Water Bureau operations and maintenance. Drinking Water infrastructure is old and was operated and maintained by a contract operator from 1999 through April 2003. The system needs programs to optimize the assessment of its condition, maintenance, operations, and management strategies to guide investment of limited capital budget, maintain existing treatment and distribution facilities, and provide drinking water to customers.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,000	0	2,000	0	2,000	0	0	0	0	0	0

* Amounts in thousands of dollars

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Customer Billing and Information System

Order	127		
Project Manager	Melinda Langston		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	New	End Date	2006
Project Category	Special Projects	WBS No.	08.04.012
NPU	ALL	Council	ALL
Facility	Various	Status	Unfunded

Description

This project will replace the existing EDS Customer Billing and Information System. Project includes:

- Review and, where possible, updating historical water account information; Procurement, configuration and installation and startup of a new billing and customer information system;
- Software licenses, training, and maintenance; integration of customer information with other City and Department functions (e.g., Finance, Operations, and Maintenance);
- Enhancements to the business operations of the Bureau of Drinking Water; and
- Selection of an off-site billing system service provider

Justification

This project is necessary to enhance Water and Sewer Fund revenue collections and support upgrade of the City's bond rating. The existing system is no longer marketed by vendor and as a result maintenance and enhancements are difficult. Substantial upgrades to the system are required to accommodate new rate structure, integration of other City services such as stormwater, and better City access and information utilization. Existing system does not comply with City-Wide Information Technology requirements.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
8,000	0	8,000	8,000	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Pipe Laying - Annual Contract

Order	131		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2003
Type	New	End Date	2008
Project Category	Annual Contract	WBS No.	08.02.010
NPU	ALL	Council	ALL
Facility	Distribution	Status	Partially Funded

Description

This annual contract includes distribution main reinforcements and distribution water main replacement throughout the distribution system. This also includes installation of new service water meters that are 3-inches and larger.

Much of the work for 2005, 2006 and 2007 is to be accomplished in Stockade, McDaniel and Greensferry CSO separation areas. This work is described in these Sewer Separation projects.

Justification

Ongoing water line replacement is necessary to maintain the system within the useful life of the water lines and to provide reliable and safe water service. The Department of Watershed Management utilizes outside annual contractors on an on-call basis to provide this work in a responsive and cost-efficient manner.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
137,000	9,000	128,000	0	8,650	7,050	7,300	15,000	15,000	15,000	60,000

* Amounts in thousands of dollars

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Raising Valve & Manhole Covers - Annual Contract

Order	133		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2008
Project Category	Annual Contract	WBS No.	08.01.010
NPU	ALL	Council	ALL
Facility	Distribution	Status	Partially Funded

Description

This annual contract provides for raising valve and manhole covers to match the pavement surface following road paving projects.

This work is to be coordinated with sewer line repair and replacement to avoid subsequent disruption and damage to completed sewer jobs. A coordinated effort will result in one disruption of the area, yet all non-compliant construction corrected at one time. This work is to address valve boxes and water valve manhole covers only.

Justification

There are areas of the city where road resurfacing has covered valve boxes and manholes. Continuing work is needed to adjust these and avoid creating road hazards following road paving projects.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
8,250	750	7,500	0	750	750	750	750	750	750	3,000

* Amounts in thousands of dollars

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Water Meter Replacement and Automated Meter Reading - Annual Contract

Order	134		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	Renovation	End Date	2007
Project Category	Special Projects	WBS No.	08.02.001
NPU	ALL	Council	ALL
Facility	Distribution	Status	Unfunded

Description

Replace all system small and large meters, provide backflow devices, and provide automated meter reading system. This project includes the replacement of all residential and commercial meters below 3 inches and the replacement of all commercial meters 3 inches and greater, the provision and placement of backflow prevention devices (dual check and reduced pressure zone), covering of exposed RPZ backflow preventors, and purchase and implementation of an automated meter reading system.

Justification

As meters age they under-report consumption and therefore revenues associated with under-reporting meters are lost. Meter revenue may be underestimated due to a lack of consistent meter reading caused by insufficient manpower. These improvement provide:

- (1) Meters – more accurate recording of consumption
- (2) Backflow devices – more secure control of distribution system integrity and compliance with state regulations for cross-connection control
- (3) AMR – More consistent reading of meters, therefore more accurate billing, better data to deal with customer complaints, without staff addition.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
66,000	0	66,000	22,000	22,000	22,000	0	0	0	0	0

* Amounts in thousands of dollars

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Repair and Replacement of Large Water Meters - Annual Contract

Order	135		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	New	End Date	2007
Project Category	Annual Contract	WBS No.	08.02.004
NPU	ALL	Council	ALL
Facility	Distribution	Status	Funded

Description

These repairs and replacements will be based on the recommendations from the annual testing and analysis of large meter – annual contract.

Justification

As meters age they under-report consumption and therefore revenues associated with under-reporting meters are lost.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
4,500	1,500	3,000	0	1,500	1,500	0	0	0	0	0

* Amounts in thousands of dollars

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Valve, Pipe, and Fire Hydrant Repairs/Replacements - Annual Contract

Order	136		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Annual Contract	WBS No.	08.02.002
NPU	ALL	Council	ALL
Facility	Distribution	Status	Funded

Description

This project includes the repair of valves, fire hydrants and pipe segments, discovered to be failing or leaking or inoperable under the leakage audit.

Justification

The existing system has been re-active in repairing leaks reported by customers or reported by repair crews. This has not located unreported leaks, which continue, yet are not identified and scheduled for repair. The current lost water rate indicates that there may be system leaks currently un-identified.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,300	2,300	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Water Line Replacement in the Stockade Combined Sewer Basin

Order	137		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	Renovation	End Date	2007
Project Category	Annual Contract	WBS No.	98.04.029
NPU	M,N,O,V,W,Y	Council	1,2,5,6
Facility	Distribution	Status	Partially Funded

Description

This Water line replacement project is part of an overall effort in the Stockade area. While the sewer separation is being done, needed water line replacement work will be done concurrently to prevent duplicate disruption to the neighborhood. Only water line costs are shown here. Sewer separation costs are show under wastewater.

The purpose of the parallel project is to separate the combined sewers into separate sanitary sewers and storm sewers in the Stockade sub-basin of the Custer CSO basin. By separating the sewers, the size of the combined sewage storage for the Custer CSO basin is reduced, and a regulator facility can be eliminated. This project is a component of the refined Authorized CSO Remedial Measures Plan. Refer to WBS No. 05.18.201.

Justification

The water line replacement is required because the lines being replaced are quite old and beyond their design life. These lines provide both fire protection and drinking water distribution and must be emergency repaired when they fail. As the incidence of failure increases, the investment into a new line replacement becomes more justified. The water line replacement is being performed concurrently with the sewer separation to avoid having to come into the neighborhood twice and repeat the disruption. This also decreases cost of duplicating street repairs.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
20,500	0	20,500	6,400	8,500	5,600	0	0	0	0	0

* Amounts in thousands of dollars

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Water Line Replacement in the McDaniel Combined Sewer Basin

Order	138		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	New	End Date	2007
Project Category	Annual Contract	WBS No.	98.04.028
NPU	K,L,M,S,T,V,X,Y	Council	1,2,3,4,5,12
Facility	Distribution	Status	Partially Funded

Description

This Water line replacement project is part of an overall effort in the McDaniel area. While the sewer separation is being done, needed water line replacement work will be done concurrently to prevent duplicate disruption to the neighborhood. Only water line costs are shown here. Sewer separation costs are shown under wastewater.

The purpose of this parallel project is to separate the combined sewers into separate sanitary sewers and storm sewers in the McDaniel CSO basin. By separating the sewers, the size of the combined sewage storage for the East Area CSO is reduced, and a CSO facility can be eliminated. This project is a component of the refined Authorized CSO Remedial Measures Plan. Refer to WBS No. 05.18.100.

Justification

The water line replacement is required because the lines being replaced are quite old and beyond their design life. These lines provide both fire protection and drinking water distribution and must be emergency repaired when they fail. As the incidence of failure increases, the investment into a new line replacement becomes more justified. The water line replacement is being performed concurrently with the sewer separation to avoid having to come into the neighborhood twice and repeat the disruption. This also decreases cost of duplicating street repairs.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
9,800	0	9,800	5,750	2,150	1,900	0	0	0	0	0

* Amounts in thousands of dollars

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Water Line Replacement in the Greensferry Combined Sewer Basin

Order	139		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	New	End Date	2007
Project Category	Annual Contract	WBS No.	98.04.027
NPU	I,J,K,L,M,S,T,V,X	Council	2,3,4,9,10,12
Facility	Distribution	Status	Partially Funded

Description

This Water line replacement project is part of an overall effort in the Greensferry area. While the sewer separation is being done, needed water line replacement work will be done concurrently to prevent duplicate disruption to the neighborhood. Only water line costs are shown here. Sewer separation costs are shown under wastewater.

The purpose of this parallel project is to separate the combined sewers into separate sanitary sewers and storm sewers in the Greensferry CSO basin. By separating the sewers, the size of the combined sewage storage for the West Area CSO is reduced, and a CSO facility can be eliminated. This project is a component of the refined Authorized CSO Remedial Measures Plan. Refer to WBS No. 05.17.400.

Justification

The water line replacement is required because the lines being replaced are quite old and beyond their design life. These lines provide both fire protection and drinking water distribution and must be emergency repaired when they fail. As the incidence of failure increases, the investment into a new line replacement becomes more justified. The water line replacement is being performed concurrently with the sewer separation to avoid having to come into the neighborhood twice and repeat the disruption. This also decreases cost of duplicating street repairs.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
11,900	0	11,900	5,200	6,700	0	0	0	0	0	0

* Amounts in thousands of dollars

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Water System Leakage Audit and Underground Void Detection

Order	140		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	New	End Date	2006
Project Category	Annual Contract	WBS No.	08.02.007
NPU	ALL	Council	ALL
Facility	Distribution	Status	Funded

Description

The current leak repair priority relies on customer complaints and repair crew notification. This distribution system-wide assessment for leaks should result identification of system leaks, and result in a reduction of lost water after repair. The work will include assessment of hydrants, valves, and lines.

Leakage in the distribution system causes erosion and eventually underground voids if not detected early. This project is to provide specialized services to assess underground voids. Repairs will be made via an annual pipelaying contract or through distribution repair crews.

Justification

The correction of water loss results in:

- Less production cost
- Less deterioration to the existing distribution system
- More reliable operation
- Safer roads and streets form potholes and sinkholes

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,500	3,500	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Testing and Analysis of Large Water Meters - Annual Contract

Order	141		
Project Manager	Lee Hunt		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	New	End Date	2006
Project Category	Annual Contract	WBS No.	08.02.003
NPU	ALL	Council	ALL
Facility	Distribution	Status	Funded

Description

This project requires the testing and analysis of the operability and accuracy of all large meters. The scope of this work includes an identification and assessment of required repairs – or replacement for field crews to implement (under another contract).

Justification

Large meter consumption reflects approximately 75% of all finished water consumption, yet meter age and frequency of reading indicates an under-estimation of revenue. This contract will assess each large meter to (1) estimate lost consumption reading) (2) recommend repair to be accomplished under another contract.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
500	500	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Reserve for Appropriations - System Renewal or Operational Reliability

Order	627		
Project Manager	Calculation		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2014
Project Category	Reserve	WBS No.	98.99.002
NPU	ALL	Council	ALL
Facility	Other	Status	Unfunded

Description

These reserve amounts are established for the Clean Water Atlanta capital projects in the event of significant increases in the scope and cost of identified projects, or for new projects not foreseen at this time that are related to implementation of projects identified in the CIP, or for other justifiable and unforeseen factors. These amounts are in addition to any reserve for appropriations established by the Finance Department related to any bond obligation requirement. This reserve may be funded, as needed, by short term debt instruments, if not funded via bond funds.

Justification

It is prudent to plan for unforeseen project costs at the initial phase of this large and comprehensive capital projects undertaking.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
24,949	0	24,949	4,318	5,994	5,775	777	3,361	788	788	3,150

* Amounts in thousands of dollars

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Tanyard West Area Disinfection Facility

Order	401		
Project Manager	Paula Days		
Program	Consent Decree (CSO)	Start Date	2003
Type	New	End Date	2005
Project Category	CSO	WBS No.	05.04.003
NPU	C,D,E	Council	2,6,7,8
Facility	West CSOs	Status	Funded

Description

Provide disinfection system improvements at the Tanyard CSO Control Facility to include additional chemical feed pumps, mixing and process control system modifications.

Justification

The proposed improvements are to provide increased reliability for the existing disinfection system and to correct infrequent problems that have been identified with maintaining adequate mixing of sodium hypochlorite and CSOs under low flow conditions.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
500	500	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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CSO Dechlorination West

Order	402	Start Date	2002
Project Manager	Chris Staud	End Date	2005
Program	Consent Decree (CSO)	WBS No.	05.19.001
Type	New	Council	8,9
Project Category	CSO	Status	Partially Funded
NPU	A,C,D		
Facility	West CSOs		

Description

Construction of modifications and additions to the Clear Creek, Tanyard Creek and North Avenue CSO Control Facilities. Each of the facilities is to be equipped with a duplex chemical system consisting of chemical storage tanks for sodium bisulfite, chemical metering pumps, transfer pumps, flow control valves, and flow meters.

Justification

The project is a major element of the refined Authorized CSO Remedial Measures Plan and is required under the Consent Decree (Paragraphs VII.A.2. and 5.). The project must be substantially completed by Feb. 1, 2006. It will provide dechlorination of discharges (that cannot be stored in the new West Area CSO Tunnel) from the existing Clear Creek, Tanyard Creek and North Avenue CSO Control Facilities.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,514	3,514	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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West Area CSO Treatment Plant

Order	404	Start Date	2001
Project Manager	Paula Days	End Date	2007
Program	Consent Decree (CSO)	WBS No.	05.15.001
Type	New	Council	8,9
Project Category	CSO	Status	Partially Funded
NPU	A,C,D		
Facility	West CSOs		

Description

The purpose of this project is to provide for treatment of combined sewage overflows from the North Avenue, Tanyard, and Clear Creek CSO facilities that will be stored in the West Area CSO Storage Tunnel. This project is a component of the refined Authorized CSO Remedial Measures Plan. As a refinement to the Authorized Plan, the facility is a new 85-MGD treatment plant which will be located at the abandoned Chattahoochee Steam Plant (adjacent to the RM Clayton WRC Headworks). The treatment processes resulting from the Value Engineering analysis include screening, grit and solids removal with vortex separators, high-rate filtration, sodium hypochlorite disinfection and sodium bisulfite dechlorination.

Justification

The project is a major element of the refined Authorized CSO Remedial Measures Plan and is required under the Consent Decree (Paragraphs VII.A.2. and 5.). The project must be substantially completed by October 15, 2007.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
54,639	4,599	50,040	10,000	23,000	17,040	0	0	0	0	0

* Amounts in thousands of dollars

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Intrenchment Creek CSO Treatment Plant

Order	405		
Project Manager	Russ McKern		
Program	Consent Decree (CSO)	Start Date	2001
Type	Renovation	End Date	2007
Project Category	CSO	WBS No.	05.16.001
NPU	W,Y,Z	Council	1,5
Facility	Intrenchment Creek CSO	Status	Partially Funded

Description

Construction of modifications and additions to the Intrenchment Creek CSO Treatment Plant consisting of pumping station modifications, grit removal system improvements, new filtration system and chemical feed systems for chlorination and dechlorination.

Justification

The project is a major element of the refined Authorized CSO Remedial Measures Plan and is required under the Consent Decree (Paragraphs VII.A.2. and 5.). The project must be substantially completed by Feb. 1, 2007. It will provide a higher level of treatment at the existing Intrenchment Creek CSO Treatment Plant for CSOs from the Custer Combined Sewer Basin for discharge of treated effluent to Intrenchment Creek and the South River.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
24,016	2,701	21,314	21,314	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Intrenchment Creek WRC Capacity Expansion

Order	407		
Project Manager	George Barnes		
Program	Consent Decree (CSO)	Start Date	2004
Type	New	End Date	2006
Project Category	Intrenchment Creek	WBS No.	05.25.001
NPU	W,Y,Z	Council	1
Facility	Intrenchment Creek WRC	Status	Partially Funded

Description

The project consists of providing a 7 million gallon storage tank at the WRC for use after sewer separation in the Stockade CSO Sub-basin, based on estimates of increased wet weather flow from the Stockade sub-basin and the capacity of the WRC.

Justification

The project is an element of the refined Authorized CSO Remedial Measures Plan and is required under the Consent Decree (Paragraphs VII.A.2. and 5.). When the Stockade combined sewer sub-basin is separated, the Confederate Regulator will no longer be used and the IC Water Reclamation Center (WRC) will experience higher flows. (The WRC has not experienced the full complement of wet weather sanitary sewer flow because the Confederate Regulator shuts off flow to the WRC during wet weather.) This project provides the additional storage capacity needed at the WRC to accommodate the additional flow which will result from the removal of the Confederate Regulator.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
6,607	107	6,500	0	0	0	500	6,000	0	0	0

* Amounts in thousands of dollars

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CSO Cost Sharing Projects

Order	409		
Project Manager	Lowell Chambers		
Program	Consent Decree (CSO)	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Collection & Transmission	WBS No.	05.96.001
NPU	ALL	Council	ALL
Facility	Various	Status	Partially Funded

Description

These projects will address capacity related issues associated within the CSO Basins that are expected to be required by developers to proceed with development in capacity limited basins. The cost estimates represent the City's share of a larger project that is needed, with the developer funding its portion of the project and perhaps building the larger project. The overall cost estimate for capacity relief projects required by the First Amended Consent Decree was established based on preliminary designs with an estimate of future flows and hydraulic modeling using a five-year storm.

Justification

Projects in this category are justified to allow development to proceed ahead of the schedule required by the First Amended Consent Decree (Paragraph VIII.C.8) for capacity relief required by the First Amended Consent Decree (Paragraph VIII.C.6).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
21,300	0	21,300	5,300	4,000	4,000	4,000	4,000	0	0	0

* Amounts in thousands of dollars

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CSO Interim Relief Projects

Order	410		
Project Manager	Lowell Chambers		
Program	Consent Decree (CSO)	Start Date	2004
Type	Renovation	End Date	2009
Project Category	Collection & Transmission	WBS No.	05.97.001
NPU	ALL	Council	ALL
Facility	Various	Status	Unfunded

Description

The purpose of this project category is to provide capacity relief in portions of the combined sewer basins that are capacity limited to prevent sanitary sewer overflows. These are termed Interim because they would be performed prior to the requirement of the First Amended Consent Decree to allow for development in capacity limited portions of the basins to proceed, or to reduce or eliminate sanitary sewer overflows if such are found to result from lack of design capacity (i.e., not due to operation and maintenance issues). This project category is part of the overall Capacity Relief program that was identified as a component of the refined Authorized CSO Remedial Measures Plan.

This project category consists of presently un-identified individual projects which would be developed from hydraulic modeling, sewer spill experience, limited sewer inspection (ahead of scheduled SSES Sewer Group 5 and 6 work), and development needs. These projects could be upsized pipes, parallel relief pipes, or storage facilities (tanks or pipes), as determined by cost effective analyses. The overall cost estimate for capacity relief projects required by the First Amended Consent Decree was established based on preliminary designs with an estimate of future flows and hydraulic modeling using a five-year storm.

Justification

Projects in this category will be justified to allow development to proceed ahead of the schedule required by the First Amended Consent Decree (Paragraph VIII.C.8) for capacity relief required by the First Amended Consent Decree (Paragraph VIII.C.6).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
50,000	0	50,000	4,652	12,751	13,750	13,750	3,987	1,110	0	0

* Amounts in thousands of dollars

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West Area CSO Storage Tunnel and Pumping Station

Order	411		
Project Manager	George Barnes		
Program	Consent Decree (CSO)	Start Date	2001
Type	New	End Date	2007
Project Category	CSO Tunnel	WBS No.	05.13.001
NPU	A,C,D,E,G,J,K,L,T	Council	2,3,4,6,7,8,9
Facility	Other	Status	Partially Funded

Description

This project is a major component of the refined Authorized CSO Remedial Measures Plan. The CSO storage tunnel and pumping station will provide for the capture and treatment of up to 177 MG of CSO from the Clear Creek, Tanyard Creek, and North Avenue combined sewersheds. The proposed 24-ft finished diameter tunnel is approximately 8.5 miles long and 150 to 300 feet deep. Two connecting tunnels, Tanyard Creek Connector (450 LF and 11.5-ft diameter) and North Avenue Connector (415 LF and 9.5-ft diameter) will convey flow to the mainline tunnel from the existing CSO Control facilities. The tunnel has four construction shafts, which are 40' in diameter and three vortex type drop shafts, which range from 9' to 16' in diameter. The tunnel will be concrete lined where necessary. The cost estimate includes an assumption of 50% concrete lining, although the amount of lining expected to be needed is less than that. The project includes a submersible type dewatering pump station, approximately 170 ft deep and 85 ft in diameter with a capacity of 85-MGD.

Justification

The project is a major element of the refined Authorized CSO Remedial Measures Plan and is required under the Consent Decree (Paragraphs VII.A.2. and 5.). The project must be substantially completed by November 7, 2007.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
252,254	86,932	165,322	56,705	83,343	25,273	0	0	0	0	0

* Amounts in thousands of dollars

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Custer Avenue Storage and Dechlorination Facility

Order	412		
Project Manager	George Barnes		
Program	Consent Decree (CSO)	Start Date	2001
Type	New	End Date	2005
Project Category	CSO Storage Tank	WBS No.	05.14.001
NPU	V,W,Y,Z	Council	1,2,5
Facility	Custer CSO	Status	Partially Funded

Description

This project is a major component of the refined Authorized CSO Remedial Measures Plan. The Custer Avenue Storage Facility is a 10 million gallon storage facility that will connect to the existing 34 million gallon capacity Intrenchment Creek CSO Storage Tunnel to provide a total of 44 million gallons of storage for flows from the Boulevard CSO Regulator facility serving the Custer CSO Basin. The proposed linear storage facility will be approximately 600 ft. long with an arch roof. It will be constructed in hard rock approximately 80 to 120 ft. feet below ground. The storage facility has one construction shaft, 30' in diameter and approximately 120' deep. The storage facility will be concrete lined where required. The linear storage facility will fill when the capacity of the existing storage tunnel is exceeded and will drain back to the existing storage tunnel as it is dewatered to the Intrenchment Creek CSO Treatment Facility. The project also includes a new dechlorination facility equipped with a duplex chemical system consisting of chemical storage tanks for sodium bisulfite, chemical metering pumps, transfer pumps, flow control valves and flow meters; and addition of fine screens to the Custer Avenue CSO Facility.

Justification

The project is a major element of the refined Authorized CSO Remedial Measures Plan and is required under the Consent Decree (Paragraphs VII.A.2. and 5.). The dechlorination project must be substantially completed by Feb. 1, 2006 and the storage project by Mar. 1, 2007. It will provide dechlorination of the Custer Basin CSO flow from the Boulevard Regulator, fine screening of CSOs ahead of the storage tunnel and additional CSO storage to supplement the capacity of the existing Intrenchment Creek CSO Tunnel.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
16,060	1,521	14,539	14,539	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Stockade Combined Sewer Separation - Phase 2

Order	462		
Project Manager	Lance Clark		
Program	Consent Decree (CSO)	Start Date	2002
Type	New	End Date	2007
Project Category	Sewer Separation	WBS No.	05.18.201
NPU	M,N,O,V,W,Y	Council	1,2,5,6
Facility	Collection	Status	Partially Funded

Description

The purpose of the sewer separation portion of this project is to separate the combined sewers into separate sanitary sewers and storm sewers in the Stockade sub-basin of the Custer CSO basin. By separating the sewers, the size of the combined sewage storage for the Custer CSO basin is reduced, and a regulator facility can be eliminated. This project is a component of the refined Authorized CSO Remedial Measures Plan.

The sewer separation portion of the project consists of separating approximately 59,000 feet of combined sewers into separate storm and predominately 8-in diameter new sanitary sewers, and changing out any storm inlets that have traps into ones without. The project includes video inspection of combined sewers prior to design and cleaning sewers as needed to video inspect. This project will allow decommissioning the Confederate Regulator.

This project also includes replacement of existing, old water lines, hydrants, and valves that are in the Phase I and Phase II replacement program that are within the combined sewer basin. Water line replacement details and costs are shown in the Water CIP. The costs shown below are only for the sewer separation portion.

Justification

The sewer separation portion of the project is a major element of the refined Authorized CSO Remedial Measures Plan and is required under the Consent Decree (Paragraphs VII.A.2. and 5.). The project must be completed by substantially September 1, 2007.

The water line replacement is required because the lines being replaced are quite old, beyond their useful life for reliable water distribution, including fire protection, and require emergency repairs when they fail. The replacement is being performed with the sewer separation to avoid coming into the neighborhood twice with significant disruption and the extra cost for street repair/replacement.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
62,785	11,489	51,296	8,400	33,600	9,296	0	0	0	0	0

* Amounts in thousands of dollars

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McDaniel Combined Sewer Separation

Order	463		
Project Manager	Lance Clark		
Program	Consent Decree (CSO)	Start Date	2002
Type	New	End Date	2007
Project Category	Sewer Separation	WBS No.	05.18.100
NPU	K,L,M,S,T,V,X,Y	Council	1,2,3,4,5,12
Facility	Collection	Status	Partially Funded

Description

The purpose of the sewer separation portion of this project is to separate the combined sewers into separate sanitary sewers and storm sewers in the McDaniel CSO basin. By separating the sewers, the size of the combined sewage storage for the East Area CSO is reduced, and a CSO facility can be eliminated. This project is a component of the refined Authorized CSO Remedial Measures Plan.

The sewer separation portion of the project consists of separating approximately 55,000 feet of combined sewers into separate storm and predominately 8-in. diameter new sanitary sewers, and changing out any storm inlets that have traps into ones without. The project includes video inspection of combined sewers prior to design and cleaning sewers as needed to video inspect. This project will allow decommissioning the McDaniel CSO facility.

This project also includes replacement of existing, old water lines, hydrants, and valves that are in the Phase I replacement program that are within the combined sewer basin. Water line replacement details and costs are shown in the Water CIP. The costs shown below are only for the sewer separation portion.

Justification

The sewer separation portion of the project is a major element of the refined Authorized CSO Remedial Measures Plan and is required under the Consent Decree (Paragraphs VII.A.2. and 5.). The project must be completed by September 1, 2007.

The water line replacement is required because the lines being replaced are quite old, beyond their design life for reliable water distribution, including fire protection, and require emergency repairs when they fail. The replacement is being performed with the sewer separation to avoid coming into the neighborhood twice with significant disruption and the extra cost for street repair/replacement.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
41,345	5,219	36,126	10,300	20,500	5,326	0	0	0	0	0

* Amounts in thousands of dollars

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Greensferry Combined Sewer Separation

Order	464		
Project Manager	Lance Clark		
Program	Consent Decree (CSO)	Start Date	2002
Type	New	End Date	2007
Project Category	Sewer Separation	WBS No.	05.17.400
NPU	I,J,K,L,M,S,T,V,X	Council	2,3,4,9,10,12
Facility	Collection	Status	Partially Funded

Description

The purpose of the sewer separation portion of this project is to separate the combined sewers into separate sanitary sewers and storm sewers in the Greensferry CSO basin. By separating the sewers, the size of the combined sewage storage for the West Area CSO is reduced, and a CSO facility can be eliminated. This project is a component of the refined Authorized CSO Remedial Measures Plan.

The sewer separation portion of the project consists of separating approximately 58,000 feet of combined sewers into separate storm and predominately 8-in diameter new sanitary sewers, and change out any storm inlets that have traps into ones without. The project includes video inspection of combined sewers prior to design and cleaning sewers as needed to video inspect. This project will allow decommissioning the Greensferry CSO facility.

This sewer separation portion of the project also includes replacement of existing, old water lines, hydrants, and valves that are in the Phase I and Phase II replacement program that are within the combined sewer basin. Water line replacement details and costs are shown in the Water CIP. The costs shown below are only for the sewer separation portion.

Justification

The sewer separation project is a major element of the refined Authorized CSO Remedial Measures Plan and is required under the Consent Decree (Paragraphs VII.A.2. and 5.). The project must be substantially completed by September 27, 2007.

The water line replacement is required because the lines being replaced are quite old, beyond their design life for reliable water distribution, including fire protection, and require emergency repairs when they fail. The replacement is being performed with the sewer separation to avoid coming into the neighborhood twice with significant disruption and the extra

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
52,541	6,504	46,037	7,000	31,000	8,037	0	0	0	0	0

* Amounts in thousands of dollars

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Greenway Acquisition - Consultant Services

Order	482		
Project Manager	Susan Rutherford		
Program	Consent Decree (CSO)	Start Date	2004
Type	New	End Date	2005
Project Category	Special Projects	WBS No.	05.09.007
NPU	ALL	Council	ALL
Facility	Other	Status	Partially Funded

Description

The CSO Consent Decree requires the City to spend \$25 million acquiring land adjacent to major tributaries of the Chattahoochee and South Rivers for the purpose of preventing erosion and non-point source pollution from stormwater runoff. These funds are for Consulting Services associated with the Greenway Acquisition. The project implementation consultant provides project management, property negotiation, acquisition, GIS mapping, reporting, record-keeping, public involvement, and coordination with SEP Advisory Committee as necessary.

Justification

This project is required to comply with the requirements of the Greenway Acquisition Project as required in Section VIII.B.1 of the CSO Consent Decree and as further defined in the City of Atlanta Final Approved Greenway Acquisition Plan approved by EPA/EPD on March 29, 2001.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
6,848	5,098	1,750	800	800	150	0	0	0	0	0

* Amounts in thousands of dollars

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Greenway Acquisition - Land Acquisition

Order	483		
Project Manager	Susan Rutherford		
Program	Consent Decree (CSO)	Start Date	2001
Type	New	End Date	2007
Project Category	Special Projects	WBS No.	05.09.006
NPU	ALL	Council	ALL
Facility	Other	Status	Partially Funded

Description

The CSO Consent Decree requires the City to acquire land adjacent to major tributaries of the Chattahoochee and South Rivers for the purpose of preventing erosion and non-point source pollution from stormwater runoff. This project provides for the acquisition of streamside properties along designated streams to meet this purpose. Consulting services associated with the acquisition of these properties are covered under an additional project.

Justification

This project is required to comply with the requirements of the Greenway Acquisition Project as required in Section VIII.B.1 of the CSO Consent Decree and as further defined in the City of Atlanta Final Approved Greenway Acquisition Plan approved by EPA/EPD on March 29, 2001.

Project	Funded	UnFunded								
Total	Total	Total	2004	2005	2006	2007	2008	2009	2010	2011-14
25,000	19,000	6,000	0	6,000	0	0	0	0	0	0

* Amounts in thousands of dollars

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CSO Program Management Services

Order	503	Start Date	2004
Project Manager	Rob Hunter	End Date	2008
Program	Consent Decree (CSO)	WBS No.	08.01.092
Type	Renovation	Council	ALL
Project Category	Annual Contract	Status	Unfunded
NPU	ALL		
Facility	Other		

Description

This includes the Program Management Services for the Clean Water Atlanta Program associated with the Consent Decree and First Amended Consent Decree projects, as well as Regulatory and Renewal and Extension projects. The program management services include: CSO remedial plan implementation, SSO remedial plan implementation, hydraulic modeling, CD procurement, land acquisitions, capacity certification, SSES, CSO Sampling, Water Quality Monitoring, GIS/Mapping, EPA Coordination (reporting), Emergency Response Program, MOMS activities, Capital Asset Management, Public Information and Interagency Relations/Funding.

Justification

Program management assistance to the Department of Watershed Management is necessary to maintain compliance with provisions of the CSO Consent Decree and the First Amended Consent Decree (FACD).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
18,492	6,059	12,434	0	5,132	4,080	3,221	0	0	0	0

* Amounts in thousands of dollars

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Reserve for Appropriations - Consent Decree (CSO)

Order	626				
Project Manager	Calculation				
Program	Consent Decree (CSO)	Start Date	2004		
Type	Renovation	End Date	2014		
Project Category	Reserve	WBS No.	99.02.005		
NPU	ALL	Council	ALL		
Facility	Other	Status	Unfunded		

Description

These reserve amounts are established for the Clean Water Atlanta capital projects in the event of significant increases in the scope and cost of identified projects, or for new projects not foreseen at this time that are related to implementation of projects identified in the CIP, or for other justifiable and unforeseen factors. These amounts are in addition to any reserve for appropriations established by the Finance Department related to any bond obligation requirement. This reserve may be funded, as needed, by short term debt instruments, if not funded via bond funds.

Justification

It is prudent to plan for unforeseen project costs at the initial phase of this large and comprehensive capital projects undertaking.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
24,133	0	24,133	6,951	11,006	4,348	1,074	699	56	0	0

* Amounts in thousands of dollars

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Camp Creek Outfall Capacity Relief-Phase 1

Order	350		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2005
Type	Renovation	End Date	2005
Project Category	Collection & Transmission	WBS No.	04.16.357
NPU	P,R	Council	11
Facility	Collection	Status	Funded

Description

Phase 1 of the Camp Creek Outfall Capacity Relief project involves construction of a replacement sewer for the Camp Creek Outfall segment between North Camp Creek Parkway SW and the Fulton County Camp Creek Interceptor including a section which is within the site of the Princeton Lakes development. The replacement sewer consists of 3,458 linear feet (LF) of twin 48-inch inline storage pipes, 2,936 LF of 36-inch, 61 LF of 24-inch, 312 LF of 12-inch pipes, and the associated manholes and regulator structure.

Justification

This project is required to eliminate a capacity limitation in Sewer Groups 1, 2 and 3 as required by the First Amended Consent Decree (Paragraph VIII.C.6). In addition, Phase 1 of project is required to be completed before the Princeton Lakes development can connect to the sewer and the Certificate of Occupancy can be issued.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,375	0	1,375	1,375	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Pump Station 2003 Improvements (BR,PL,PA,RF)

Order	351		
Project Manager	John Reinhard		
Program	First Amended Consent Decree (SSO)	Start Date	2003
Type	Renovation	End Date	2005
Project Category	Pump Stations	WBS No.	03.06.903
NPU	C,D,G,H,Y,Z	Council	9
Facility	Various	Status	Partially Funded

Description

This project includes a variety of upgrades that are necessary to meet the requirements of the Short-Term Pump Station Operations Plan and to maintain the pump stations in good operating order and in compliance with regulatory requirements. Key items include:

1. Replacing the Paul Avenue ejector station with a submersible station.
2. Upgrading capacity/storage at the Bolton Road PS to handle 45 gpm and adding bypass pumping capability.
3. Upgrading capacity/storage at the Phillip Lee PS to handle 55 gpm, adding bypass pumping capability, and adding motorized operators to the discharge valves.
4. Increasing the capacity of the Rebel Forest PS, upgrading the influent sewer line between the old and the new pump station, and extending the force main approximately 1,100 feet.
5. Upgrading the Perry Homes Diversion Structure to include motorized gate operators w/ telemetry back to Utoy and RMC WRC's.
6. Miscellaneous upgrades to enhance safety and operational performance.

Justification

As noted above, this project includes a variety of operational upgrades that are necessary to meet the requirements of the Short-Term Pump Station Operations Plan and to maintain the pump stations in good operating order and in compliance with regulatory requirements. The Paul Avenue Pump Station is 50 years old and does not have sufficient capacity. Increased capacity and the ability to provide bypass pumping are needed at the Bolton Road and Phillip Lee Pump Stations to ensure sufficient pumping capacity and operational reliability. Peak flows to the RMC and Utoy Creek WRC's require automation of the Perry Homes Diversion Structure to improve the City's ability to regulate flow between the two WRC's. The force main pedestrian barrier at the South River crossing is required as part of the Short Term Collection and Transmission System Operation Plan. Improvements to the Rebel Forest Pump Station are necessary to increase capacity and eliminate the surging problem in the Forest Park receiving sewer.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
5,000	490	4,510	4,510	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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STCTSOP - Force Main Corrosion Testing

Order	371		
Project Manager	Jerri Russell		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovaton	End Date	2004
Project Category	Force Main	WBS No.	09.02.904
NPU	D,G,H	Council	1,9,12
Facility	Collection	Status	Funded

Description

This project is to complete the corrosion testing required on the Flint River, Bolton Road and Philip Lee Pump Station force mains as required under the Short Term Collection and Transmission System Operating Plan (STCTSOP)

Justification

This work is required in the Short Term Collection and Transmission System Operating Plan (STCTSOP) which was developed to meet requirements which are outlined in Section VIII.B.2 of the First Amended Consent Decree (SSO).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
83	83	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Nancy Creek Tunnel

Order	421		
Project Manager	Ade Abon		
Program	First Amended Consent Decree (SSO)	Start Date	2001
Type	New	End Date	2005
Project Category	Collection & Transmission	WBS No.	04.26.001
NPU	A,B,C,D	Council	7,8,9
Facility	Collection	Status	Funded

Description

The purpose of this project is to provide reliable interception of wastewater at key locations along the Nancy Creek Trunk and Relief sewers and prevent sanitary sewer overflows.

The Nancy Creek Tunnel is a 43,700-foot long, 16-foot finished diameter sewer tunnel, which extends from the RM Clayton WRC to DeKalb County at Johnson Ferry Road. The project includes three construction shafts, eight intake structures and 2,400 feet of connecting tunnels and chambers to transfer flow from existing sewers to the tunnel.

Justification

The project is required by the First Amended Consent Decree (Paragraph VIII.B.8.e – the Nancy Creek/Peachtree Creek diversion project) as substituted with the Nancy Creek Tunnel and Pump Station project and approved by EPA/EPD. The project must be substantially complete by December 31, 2005.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
149,896	149,896	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Nancy Creek Tunnel Pump Station Phase 2

Order	422		
Project Manager	Larry Harrod		
Program	First Amended Consent Decree (SSO)	Start Date	2002
Type	New	End Date	2005
Project Category	Collection & Transmission	WBS No.	04.26.002
NPU	A,C,D	Council	8,9
Facility	Other	Status	Funded

Description

The purpose of this project is to provide controlled pumping of the intercepted wastewater from the Nancy Creek Tunnel to prevent sanitary sewer overflows.

This project uses a Design/Build method of project delivery for the Pumping Station which is part of the Nancy Creek Trunk Sewer Capacity management Facility. This portion of the project is a 100 mgd pumping station for raw wastewater conveyed in the Nancy Creek Tunnel to the R.M. Clayton WRC for treatment. The pump station will use submersible pumps as a result of value engineering.

Justification

The project is required by the First Amended Consent Decree (Paragraph VIII.B.8.e – the Nancy Creek/Peachtree Creek diversion project) as substituted with the Nancy Creek Tunnel and Pump Station project and approved by EPA/EPD. The project must be substantially complete by December 31, 2005.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
32,250	32,250	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Sewer Group 2 - SSES

Order	435		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2003
Type	Renovation	End Date	2004
Project Category	Collection & Transmission	WBS No.	04.17.001
NPU	ALL	Council	ALL
Facility	Collection	Status	Partially Funded

Description

Under this project a Sewer System Evaluation Survey (SSES) will be performed in Sewer Group 2. The work includes physically inventorying and determining the condition of the sanitary sewer system as described below:

1. Locate all components of the sanitary sewer system and expose them for accessibility. This includes raising buried and paved over manholes. This also includes repairing collapsed sewer pipes to allow inspection to continue to completion.
2. Inventory all components of the sanitary sewer system and measure the physical dimensions.
3. Assess the condition of all components of the sanitary sewer system.
4. Repair minor deficiencies which require immediate attention to further the completeness of the survey as well as to eliminate significant infiltration/ex-filtration leaks where feasible. (Although this contract provides for the limited performance of minor repairs its primary function is information gathering.

Sewer Group 2 comprises 51 Sewersheds with a total of 335 miles or 1,768,000 feet of sewer collection system.

Justification

The SSES Program identifies the problems in the system to be tackled by the Rehabilitation, Relay or Relief Contracts which will follow the SSES work. The information gathered is extremely accurate allowing the City not only to design all its future Rehabilitation Contracts in-house, but also to complete the sanitary sewer layer for GIS mapping and correctly populate the Hansen work-order system as well as the City's Flow Modeling program. The program will also provide information on the amount of excess Infiltration and Inflow (I/I) that can be removed by rehabilitation, thus decreasing the size of the Relief sewer that might have been indicated by hydraulic modeling as being needed. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
21,882	15,224	6,658	6,658	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Sewer Group 3 - SSES

Order	436		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2005
Type	Renovation	End Date	2006
Project Category	Collection & Transmission	WBS No.	04.18.001
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

Under this project a Sewer System Evaluation Survey (SSES) will be performed in Sewer Group 3. The work includes physically inventorying and determining the condition of the sanitary sewer system as described below:

1. Locate all components of the sanitary sewer system and expose them for accessibility. This includes raising buried and paved over manholes. This also includes repairing collapsed sewer pipes to allow inspection to continue to completion.
2. Inventory all components of the sanitary sewer system and measure the physical dimensions.
3. Assess the condition of all components of the sanitary sewer system.
4. Repair minor deficiencies which require immediate attention to further the completeness of the survey as well as to eliminate significant infiltration/ex-filtration leaks where feasible. (Although this contract provides for the limited performance of minor repairs its primary function is information gathering.)

Sewer Group 3 comprises 50 sewersheds with a total of 270 miles or 1,426,000 feet of sewer collection system.

Justification

The SSES Program identifies the problems in the system to be tackled by the Rehabilitation, Relay or Relief Contracts which will follow the SSES work. The information gathered is extremely accurate allowing the City not only to design all its future Rehabilitation Contracts in-house, but also to complete the sanitary sewer layer for GIS mapping and correctly populate the Hansen work-order system as well as the City's Flow Modeling program. The program will also provide information on the amount of excess Infiltration and Inflow (I/I) that can be removed by rehabilitation, thus decreasing the size of the Relief sewer that might have been indicated by hydraulic modeling as being needed. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
18,585	0	18,585	18,585	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Sewer Group 4 - SSES

Order	437		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2006
Type	Renovation	End Date	2007
Project Category	Collection & Transmission	WBS No.	04.19.001
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

Under this project a Sewer System Evaluation Survey (SSES) will be performed in Sewer Group 4. The work includes physically inventorying and determining the condition of the sanitary sewer system as described below:

1. Locate all components of the sanitary sewer system and expose them for accessibility. This includes raising buried and paved over manholes. This also includes repairing collapsed sewer pipes to allow inspection to continue to completion.
2. Inventory all components of the sanitary sewer system and measure the physical dimensions.
3. Assess the condition of all components of the sanitary sewer system.
4. Repair minor deficiencies which require immediate attention to further the completeness of the survey as well as to eliminate significant infiltration/ex-filtration leaks where feasible. (Although this contract provides for the limited performance of minor repairs its primary function is information gathering.)

Sewer Group 4 comprises 45 sewersheds with 228 miles or 1,204,000 feet of sewer collection system.

Justification

The SSES Program identifies the problems in the system to be tackled by the Rehabilitation, Relay or Relief Contracts which will follow the SSES work. The information gathered is extremely accurate allowing the City not only to design all its future Rehabilitation Contracts in-house, but also to complete the sanitary sewer layer for GIS mapping and correctly populate the Hansen work-order system as well as the City's Flow Modeling program. The program will also provide information on the amount of excess Infiltration and Inflow (I/I) that can be removed by rehabilitation, thus decreasing the size of the Relief sewer that might have been indicated by hydraulic modeling as being needed. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
15,645	0	15,645	0	0	15,645	0	0	0	0	0

* Amounts in thousands of dollars

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Sewer Group 5 - SSES

Order	438		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2006
Type	Renovation	End Date	2007
Project Category	Collection & Transmission	WBS No.	04.20.001
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

Under this project a Sewer System Evaluation Survey (SSES) will be performed in Sewer Group 5. The work includes physically inventorying and determining the condition of the sanitary sewer system as described below:

1. Locate all components of the sanitary sewer system and expose them for accessibility. This includes raising buried and paved over manholes. This also includes repairing collapsed sewer pipes to allow inspection to continue to completion.
2. Inventory all components of the sanitary sewer system and measure the physical dimensions.
3. Assess the condition of all components of the sanitary sewer system.
4. Repair minor deficiencies which require immediate attention to further the completeness of the survey as well as to eliminate significant infiltration/ex-filtration leaks where feasible. (Although this contract provides for the limited performance of minor repairs its primary function is information gathering.)

Sewer Group 5 work is in a portion of the combined sewer system and comprises 31 sewer sheds with 178.5 miles or 942,000 feet of combined sewer system.

Justification

The SSES Program identifies the problems in the system to be tackled by the Rehabilitation, Relay or Relief Contracts which will follow the SSES work. The information gathered is extremely accurate allowing the City not only to design all its future Rehabilitation Contracts in-house, but also to complete the sanitary sewer layer for GIS mapping and correctly populate the Hansen work-order system as well as the City's Flow Modeling program. The program will also provide information on the amount of excess Infiltration and Inflow (I/I) that can be removed by rehabilitation, thus decreasing the size of the Relief sewer that might have been indicated by hydraulic modeling as being needed. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
12,285	0	12,285	0	0	0	12,285	0	0	0	0

* Amounts in thousands of dollars

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Sewer Group 6 - SSES

Order	439		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2007
Type	Renovation	End Date	2008
Project Category	Collection & Transmission	WBS No.	04.21.001
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

Under this project a Sewer System Evaluation Survey (SSES) will be performed in Sewer Group 6. The work includes physically inventorying and determining the condition of the sanitary sewer system as described below:

1. Locate all components of the sanitary sewer system and expose them for accessibility. This includes raising buried and paved over manholes. This also includes repairing collapsed sewer pipes to allow inspection to continue to completion.
2. Inventory all components of the sanitary sewer system and measure the physical dimensions.
3. Assess the condition of all components of the sanitary sewer system.
4. Repair minor deficiencies which require immediate attention to further the completeness of the survey as well as to eliminate significant infiltration/ex-filtration leaks where feasible. (Although this contract provides for the limited performance of minor repairs its primary function is information gathering.)

Sewer Group 6 work is in a portion of the combined sewer system and comprises 31 sewer sheds with 178.5 miles or 942,000 feet of combined sewer system.

Justification

The SSES Program identifies the problems in the system to be tackled by the Rehabilitation, Relay or Relief Contracts which will follow the SSES work. The information gathered is extremely accurate allowing the City not only to design all its future Rehabilitation Contracts in-house, but also to complete the sanitary sewer layer for GIS mapping and correctly populate the Hansen work-order system as well as the City's Flow Modeling program. The program will also provide information on the amount of excess Infiltration and Inflow (I/I) that can be removed by rehabilitation, thus decreasing the size of the Relief sewer that might have been indicated by hydraulic modeling as being needed. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
12,285	0	12,285	0	0	0	0	12,285	0	0	0

* Amounts in thousands of dollars

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Sewer Group 1 - Rehabilitation

Order	440		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2003
Type	Renovation	End Date	2005
Project Category	Collection & Transmission	WBS No.	04.16.200
NPU	ALL	Council	ALL
Facility	Collection	Status	Partially Funded

Description

This project is to rehabilitate the sanitary sewers in Sewer Group 1 which have been identified under the Sewer System Evaluation Survey (SSES) as needing rehabilitation. (Due to the time-sensitivity of the information gathered under the SSES Program, it is advisable to perform the needed rehabilitation work identified by the SSES Program within 3 years of collecting the data.) The Sewer Group Rehabilitation projects will address the vast majority of defects in the smaller diameter sewers (i.e. 18-inches and less). This work will be supplemented with the Small Diameter Sewer Rehabilitation annual contract. These smaller diameter sewers comprise approximately 85% of the City's collection system.

Under this project small diameter sewers will be rehabilitated by cured-in-place pipe lining techniques, pipe bursting, horizontal directional drilling and conventional excavation. Manholes will also be rehabilitated under this contract. The ability to install of house connection clean-outs and to rehabilitate laterals is also included in this Contract although broad implementation of this type of work will require a policy decision by the City.

This rehabilitation work will be performed using a series of Sewershed Rehabilitation Contracts (SSR's), i.e. contracts which generally include contiguous groups of 5 to 6 sewersheds.

Repairs to trunks and larger diameter outfall lines (i.e. those larger than 18") as well as those lines which require upsizing will be handled under one of the Sewer Group Relief Contracts or by use of one of the Annual Sanitary Sewer Contracts (i.e. Large Diameter Sewer Rehabilitation and Large Diameter Clean, Find and Fix)

Sewer Group 1 comprises 52 sewersheds with 287 miles or 1,516,000 of rehab of the sewer collection system. This equates to 20% of the total system.

Justification

Rehabilitation is anticipated to extend the life of these assets by 50 years while reducing inflow and infiltration (I/I) into the system. (I/I is extraneous flow into the system through cracks, holes, etc.) Reducing I/I decreases the quantity of flow in the system. This reduces the potential for overflows, reduces capacity problems, reduces the quantity of flow which must be treated at the treatment plants, and avoids unnecessarily increasing the size of pipelines and treatment plants to accommodate I/I. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
80,784	10,000	70,784	30,400	30,385	9,999	0	0	0	0	0

* Amounts in thousands of dollars

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Sewer Group 2 - Rehabilitation

Order	441		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2005
Type	Renovation	End Date	2007
Project Category	Collection & Transmission	WBS No.	04.17.200
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This project is to rehabilitate the sanitary sewers in Sewer Group 2 which have been identified under the Sewer System Evaluation Survey (SSES) as needing rehabilitation. (Due to the time-sensitivity of the information gathered under the SSES Program, it is advisable to perform the needed rehabilitation work identified by the SSES Program within 3 years of collecting the data.) The Sewer Group Rehabilitation projects will address the vast majority of defects in the smaller diameter sewers (i.e. 18-inches and less). This work will be supplemented with the Small Diameter Sewer Rehabilitation annual contract. These smaller diameter sewers comprise approximately 85% of the City's collection system.

Under this project small diameter sewers will be rehabilitated by cured-in-place pipe lining techniques, pipe bursting, horizontal directional drilling and conventional excavation. Manholes will also be rehabilitated under this contract. The ability to install of house connection clean-outs and to rehabilitate laterals is also included in this Contract although broad implementation of this type of work will require a policy decision by the City.

This rehabilitation work will be performed using a series of Sewershed Rehabilitation Contracts (SSR's), i.e. contracts which generally include contiguous groups of 5 to 6 sewersheds.

Repairs to trunks and larger diameter outfall lines (i.e. those larger than 18") as well as those lines which require upsizing will be handled under one of the Sewer Group Relief Contracts or by use of one of the Annual Sanitary Sewer Contracts (i.e. Large Diameter Sewer Rehabilitation and Large Diameter Clean, Find and Fix)

Sewer Group 2 comprises 51 Sewersheds with 335 miles or 1,769,000 feet of rehab of the sewer collection system. This equates to 22% of the total system.

Justification

Rehabilitation is anticipated to extend the life of these assets by 50 years while reducing inflow and infiltration (I/I) into the system. (I/I is extraneous flow into the system through cracks, holes, etc.) Reducing I/I decreases the quantity of flow in the system. This reduces the potential for overflows, reduces capacity problems, reduces the quantity of flow which must be treated at the treatment plants, and avoids unnecessarily increasing the size of pipelines and treatment plants to accommodate I/I. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
83,160	0	83,160	0	29,160	43,200	10,800	0	0	0	0

* Amounts in thousands of dollars

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Sewer Group 3 - Rehabilitation

Order	442		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2005
Type	Renovation	End Date	2007
Project Category	Collection & Transmission	WBS No.	04.18.200
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This project is to rehabilitate the sanitary sewers in Sewer Group 3 which have been identified under the Sewer System Evaluation Survey (SSES) as needing rehabilitation. (Due to the time-sensitivity of the information gathered under the SSES Program, it is advisable to perform the needed rehabilitation work identified by the SSES Program within 3 years of collecting the data.) The Sewer Group Rehabilitation projects will address the vast majority of defects in the smaller diameter sewers (i.e. 18-inches and less). This work will be supplemented with the Small Diameter Sewer Rehabilitation annual contract. These smaller diameter sewers comprise approximately 85% of the City's collection system.

Under this project small diameter sewers will be rehabilitated by cured-in-place pipe lining techniques, pipe bursting, horizontal directional drilling and conventional excavation. Manholes will also be rehabilitated under this contract. The ability to install of house connection clean-outs and to rehabilitate laterals is also included in this Contract although broad implementation of this type of work will require a policy decision by the City.

This rehabilitation work will be performed using a series of Sewershed Rehabilitation Contracts (SSR's), i.e. contracts which generally include contiguous groups of 5 to 6 sewersheds.

Repairs to trunks and larger diameter outfall lines (i.e. those larger than 18") as well as those lines which require upsizing will be handled under one of the Sewer Group Relief Contracts or by use of one of the Annual Sanitary Sewer Contracts (i.e. Large Diameter Sewer Rehabilitation and Large Diameter Clean, Find and Fix)

Sewer Group 3 comprises 50 sewersheds with 270 miles or 1,526,000 feet of rehab of the sewer collection system. This equates to 18% of the total system.

Justification

Rehabilitation is anticipated to extend the life of these assets by 50 years while reducing inflow and infiltration (I/I) into the system. (I/I is extraneous flow into the system through cracks, holes, etc.) Reducing I/I decreases the quantity of flow in the system. This reduces the potential for overflows, reduces capacity problems, reduces the quantity of flow which must be treated at the treatment plants, and avoids unnecessarily increasing the size of pipelines and treatment plants to accommodate I/I. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
82,728	0	82,728	0	0	27,000	44,928	10,800	0	0	0

* Amounts in thousands of dollars

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Sewer Group 4 - Rehabilitation

Order	443		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2008
Type	Renovation	End Date	2009
Project Category	Collection & Transmission	WBS No.	04.19.200
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This project is to rehabilitate the sanitary sewers in Sewer Group 4 which have been identified under the Sewer System Evaluation Survey (SSES) as needing rehabilitation. (Due to the time-sensitivity of the information gathered under the SSES Program, it is advisable to perform the needed rehabilitation work identified by the SSES Program within 3 years of collecting the data.) The Sewer Group Rehabilitation projects will address the vast majority of defects in the smaller diameter sewers (i.e. 18-inches and less). This work will be supplemented with the Small Diameter Sewer Rehabilitation annual contract. These smaller diameter sewers comprise approximately 85% of the City's collection system.

Under this project small diameter sewers will be rehabilitated by cured-in-place pipe lining techniques, pipe bursting, horizontal directional drilling and conventional excavation. Manholes will also be rehabilitated under this contract. The ability to install of house connection clean-outs and to rehabilitate laterals is also included in this Contract although broad implementation of this type of work will require a policy decision by the City.

This rehabilitation work will be performed using a series of Sewershed Rehabilitation Contracts (SSR's), i.e. contracts which generally include contiguous groups of 5 to 6 sewersheds.

Repairs to trunks and larger diameter outfall lines (i.e. those larger than 18") as well as those lines which require upsizing will be handled under one of the Sewer Group Relief Contracts or by use of one of the Annual Sanitary Sewer Contracts (i.e. Large Diameter Sewer Rehabilitation and Large Diameter Clean, Find and Fix)

Sewer Group 4 comprises 45 sewersheds with 228 miles or 1,204,000 feet of rehab of the sewer collection system. This equates to 15% of the total system.

Justification

Rehabilitation is anticipated to extend the life of these assets by 50 years while reducing inflow and infiltration (I/I) into the system. (I/I is extraneous flow into the system through cracks, holes, etc.) Reducing I/I decreases the quantity of flow in the system. This reduces the potential for overflows, reduces capacity problems, reduces the quantity of flow which must be treated at the treatment plants, and avoids unnecessarily increasing the size of pipelines and treatment plants to accommodate I/I. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
69,768	0	69,768	0	0	0	35,768	34,000	0	0	0

* Amounts in thousands of dollars

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Sewer Group 5 - Rehabilitation

Order	444		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2008
Type	Renovation	End Date	2009
Project Category	Collection & Transmission	WBS No.	04.20.200
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This project is to rehabilitate the sanitary sewers in Sewer Group 5 which have been identified under the Sewer System Evaluation Survey (SSES) as needing rehabilitation. (Due to the time-sensitivity of the information gathered under the SSES Program, it is advisable to perform the needed rehabilitation work identified by the SSES Program within 3 years of collecting the data.) The Sewer Group Rehabilitation projects will address the vast majority of defects in the smaller diameter sewers (i.e. 18-inches and less). This work will be supplemented with the Small Diameter Sewer Rehabilitation annual contract. These smaller diameter sewers comprise approximately 85% of the City's collection system.

Under this project small diameter sewers will be rehabilitated by cured-in-place pipe lining techniques, pipe bursting, horizontal directional drilling and conventional excavation. Manholes will also be rehabilitated under this contract. The ability to install of house connection clean-outs and to rehabilitate laterals is also included in this Contract although broad implementation of this type of work will require a policy decision by the City.

This rehabilitation work will be performed using a series of Sewershed Rehabilitation Contracts (SSR's), i.e. contracts which generally include contiguous groups of 5 to 6 sewersheds.

Repairs to trunks and larger diameter outfall lines (i.e. those larger than 18") as well as those lines which require upsizing will be handled under one of the Sewer Group Relief Contracts or by use of one of the Annual Sanitary Sewer Contracts (i.e. Large Diameter Sewer Rehabilitation and Large Diameter Clean, Find and Fix)

Sewer Group 5 comprises 31 sewersheds with 178.5 miles or 943,000 feet of rehab of the collection system. This equates to 12% of the total system.

Justification

Rehabilitation is anticipated to extend the life of these assets by 50 years while reducing inflow and infiltration (I/I) into the system. (I/I is extraneous flow into the system through cracks, holes, etc.) Reducing I/I decreases the quantity of flow in the system. This reduces the potential for overflows, reduces capacity problems, reduces the quantity of flow which must be treated at the treatment plants, and avoids unnecessarily increasing the size of pipelines and treatment plants to accommodate I/I. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
55,944	0	55,944	0	0	0	0	29,944	26,000	0	0

* Amounts in thousands of dollars

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Sewer Group 6 - Rehabilitation

Order	445		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2009
Type	Renovation	End Date	2010
Project Category	Collection & Transmission	WBS No.	04.21.200
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This project is to rehabilitate the sanitary sewers in Sewer Group 6 which have been identified under the Sewer System Evaluation Survey (SSES) as needing rehabilitation. (Due to the time-sensitivity of the information gathered under the SSES Program, it is advisable to perform the needed rehabilitation work identified by the SSES Program within 3 years of collecting the data.) The Sewer Group Rehabilitation projects will address the vast majority of defects in the smaller diameter sewers (i.e. 18-inches and less). This work will be supplemented with the Small Diameter Sewer Rehabilitation annual contract. These smaller diameter sewers comprise approximately 85% of the City's collection system.

Under this project small diameter sewers will be rehabilitated by cured-in-place pipe lining techniques, pipe bursting, horizontal directional drilling and conventional excavation. Manholes will also be rehabilitated under this contract. The ability to install of house connection clean-outs and to rehabilitate laterals is also included in this Contract although broad implementation of this type of work will require a policy decision by the City.

This rehabilitation work will be performed using a series of Sewershed Rehabilitation Contracts (SSR's), i.e. contracts which generally include contiguous groups of 5 to 6 sewersheds.

Repairs to trunks and larger diameter outfall lines (i.e. those larger than 18") as well as those lines which require upsizing will be handled under one of the Sewer Group Relief Contracts or by use of one of the Annual Sanitary Sewer Contracts (i.e. Large Diameter Sewer Rehabilitation and Large Diameter Clean, Find and Fix)

Sewer Group 6 equates to 31 sewersheds with 178.5 miles or 942,000 feet of rehab of the collection system. This equates to 12% of the total system.

Justification

Rehabilitation is anticipated to extend the life of these assets by 50 years while reducing inflow and infiltration (I/I) into the system. (I/I is extraneous flow into the system through cracks, holes, etc.) Reducing I/I decreases the quantity of flow in the system. This reduces the potential for overflows, reduces capacity problems, reduces the quantity of flow which must be treated at the treatment plants, and avoids unnecessarily increasing the size of pipelines and treatment plants to accommodate I/I. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7) and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
51,408	0	51,408	0	0	0	0	0	28,918	22,490	0

* Amounts in thousands of dollars

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Sewer Group 1 - Relief

Order	446		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2005
Type	Renovation	End Date	2009
Project Category	Collection & Transmission	WBS No.	04.16.300
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This Sewer Group Relief project will provide sewer capacity relief in those portions of the sewer basins that are determined to be capacity limited and which are not resolved in conjunction with the completion of the rehabilitation work performed under the Sewer Group Rehabilitation or other City rehabilitation projects.

This project is anticipated to consist of a variety of individual projects. Such projects will be comprised of upsized pipes, parallel relief pipes, storage facilities (tanks or pipes), tunnels, etc. as determined by cost and benefit analyses. Work will address sewers that are identified by the Flow Model as being undersized, as well as sewers which may appear to be properly sized but which need to be relocated, i.e. lines which are in failure, lines which run beneath structures, lines which are deep and/or so full of debris that they need to be rerouted and the old line abandoned, etc.

Some projects will provide solutions for a localized problem whereas other projects will be part of a regional solution for capacity relief. Projects which are part of regional solution (i.e. they address a sewer that crosses thru several sewer groups) may be required to await completion of later SSES and Hydraulic Modeling (Peak Flow Evaluation) work.

Justification

This project is required to provide sewer capacity relief in portions of the sewer basins where capacity relief can not be obtained through rehabilitation. This project will provide additional capacity, will eliminate sanitary sewer overflows and is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.6, Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
21,300	0	21,300	0	8,515	6,393	6,393	0	0	0	0

* Amounts in thousands of dollars

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Sewer Group 2 - Relief

Order	447		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2006
Type	Renovation	End Date	2010
Project Category	Collection & Transmission	WBS No.	04.17.300
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This Sewer Group Relief project will provide sewer capacity relief in those portions of the sewer basins that are determined to be capacity limited and which are not resolved in conjunction with the completion of the rehabilitation work performed under the Sewer Group Rehabilitation or other City rehabilitation projects.

This project is anticipated to consist of a variety of individual projects. Such projects will be comprised of upsized pipes, parallel relief pipes, storage facilities (tanks or pipes), tunnels, etc. as determined by cost and benefit analyses. Work will address sewers that are identified by the Flow Model as being undersized, as well as sewers which may appear to be properly sized but which need to be relocated, i.e. lines which are in failure, lines which run beneath structures, lines which are deep and/or so full of debris that they need to be rerouted and the old line abandoned, etc.

Some projects will provide solutions for a localized problem whereas other projects will be part of a regional solution for capacity relief. Projects which are part of regional solution (i.e. they address a sewer that crosses thru several sewer groups) may be required to await completion of later SSES and Hydraulic Modeling (Peak Flow Evaluation) work.

Justification

This project is required to provide sewer capacity relief in portions of the sewer basins where capacity relief can not be obtained through rehabilitation. This project will provide additional capacity, will eliminate sanitary sewer overflows and is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.6, Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
62,100	0	62,100	0	0	7,435	19,570	19,570	15,525	0	0

* Amounts in thousands of dollars

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Sewer Group 3 - Relief

Order	448		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2007
Type	Renovation	End Date	2011
Project Category	Collection & Transmission	WBS No.	04.18.300
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This Sewer Group Relief project will provide sewer capacity relief in those portions of the sewer basins that are determined to be capacity limited and which are not resolved in conjunction with the completion of the rehabilitation work performed under the Sewer Group Rehabilitation or other City rehabilitation projects.

This project is anticipated to consist of a variety of individual projects. Such projects will be comprised of upsized pipes, parallel relief pipes, storage facilities (tanks or pipes), tunnels, etc. as determined by cost and benefit analyses. Work will address sewers that are identified by the Flow Model as being undersized, as well as sewers which may appear to be properly sized but which need to be relocated, i.e. lines which are in failure, lines which run beneath structures, lines which are deep and/or so full of debris that they need to be rerouted and the old line abandoned, etc.

Some projects will provide solutions for a localized problem whereas other projects will be part of a regional solution for capacity relief. Projects which are part of regional solution (i.e. they address a sewer that crosses thru several sewer groups) may be required to await completion of later SSES and Hydraulic Modeling (Peak Flow Evaluation) work.

Justification

This project is required to provide sewer capacity relief in portions of the sewer basins where capacity relief can not be obtained through rehabilitation. This project will provide additional capacity, will eliminate sanitary sewer overflows and is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.6, Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
149,100	0	149,100	0	0	0	18,853	20,000	76,000	34,247	0

* Amounts in thousands of dollars

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Sewer Group 4 - Relief

Order	449		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2008
Type	Renovation	End Date	2009
Project Category	Collection & Transmission	WBS No.	04.19.300
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This Sewer Group Relief project will provide sewer capacity relief in those portions of the sewer basins that are determined to be capacity limited and which are not resolved in conjunction with the completion of the rehabilitation work performed under the Sewer Group Rehabilitation or other City rehabilitation projects.

This project is anticipated to consist of a variety of individual projects. Such projects will be comprised of upsized pipes, parallel relief pipes, storage facilities (tanks or pipes), tunnels, etc. as determined by cost and benefit analyses. Work will address sewers that are identified by the Flow Model as being undersized, as well as sewers which may appear to be properly sized but which need to be relocated, i.e. lines which are in failure, lines which run beneath structures, lines which are deep and/or so full of debris that they need to be rerouted and the old line abandoned, etc.

Some projects will provide solutions for a localized problem whereas other projects will be part of a regional solution for capacity relief. Projects which are part of regional solution (i.e. they address a sewer that crosses thru several sewer groups) may be required to await completion of later SSES and Hydraulic Modeling (Peak Flow Evaluation) work.

Justification

This project is required to provide sewer capacity relief in portions of the sewer basins where capacity relief can not be obtained through rehabilitation. This project will provide additional capacity, will eliminate sanitary sewer overflows and is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.6, Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
52,600	0	52,600	0	0	0	6,564	6,000	27,000	13,036	0

* Amounts in thousands of dollars

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Sewer Group 5 - Relief

Order	450		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2007
Type	Renovation	End Date	2010
Project Category	Collection & Transmission	WBS No.	04.20.300
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This Sewer Group Relief project will provide sewer capacity relief in those portions of the sewer basins that are determined to be capacity limited and which are not resolved in conjunction with the completion of the rehabilitation work performed under the Sewer Group Rehabilitation or other City rehabilitation projects.

This project is anticipated to consist of a variety of individual projects. Such projects will be comprised of upsized pipes, parallel relief pipes, storage facilities (tanks or pipes), tunnels, etc. as determined by cost and benefit analyses. Work will address sewers that are identified by the Flow Model as being undersized, as well as sewers which may appear to be properly sized but which need to be relocated, i.e. lines which are in failure, lines which run beneath structures, lines which are deep and/or so full of debris that they need to be rerouted and the old line abandoned, etc.

Some projects will provide solutions for a localized problem whereas other projects will be part of a regional solution for capacity relief. Projects which are part of regional solution (i.e. they address a sewer that crosses thru several sewer groups) may be required to await completion of later SSES and Hydraulic Modeling (Peak Flow Evaluation) work.

Justification

This project is required to provide sewer capacity relief in portions of the sewer basins where capacity relief can not be obtained through rehabilitation. This project will provide additional capacity, will eliminate sanitary sewer overflows and is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.6, Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
116,400	0	116,400	0	0	0	13,937	0	43,000	54,000	5,463

* Amounts in thousands of dollars

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Sewer Group 6 - Relief

Order	451		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2008
Type	Renovation	End Date	2012
Project Category	Collection & Transmission	WBS No.	04.21.300
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This Sewer Group Relief project will provide sewer capacity relief in those portions of the sewer basins that are determined to be capacity limited and which are not resolved in conjunction with the completion of the rehabilitation work performed under the Sewer Group Rehabilitation or other City rehabilitation projects.

This project is anticipated to consist of a variety of individual projects. Such projects will be comprised of upsized pipes, parallel relief pipes, storage facilities (tanks or pipes), tunnels, etc. as determined by cost and benefit analyses. Work will address sewers that are identified by the Flow Model as being undersized, as well as sewers which may appear to be properly sized but which need to be relocated, i.e. lines which are in failure, lines which run beneath structures, lines which are deep and/or so full of debris that they need to be rerouted and the old line abandoned, etc.

Some projects will provide solutions for a localized problem whereas other projects will be part of a regional solution for capacity relief. Projects which are part of regional solution (i.e. they address a sewer that crosses thru several sewer groups) may be required to await completion of later SSES and Hydraulic Modeling (Peak Flow Evaluation) work.

Justification

This project is required to provide sewer capacity relief in portions of the sewer basins where capacity relief can not be obtained through rehabilitation. This project will provide additional capacity, will eliminate sanitary sewer overflows and is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.6, Paragraph VIII.C.7 and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
120,200	0	120,200	0	0	0	14,393	0	20,000	63,000	22,807

* Amounts in thousands of dollars

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SSO - Cost Sharing Relief Projects

Order	452		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Collection & Transmission	WBS No.	04.96.001
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

The purpose of this project category is to address capacity related issues associated within the Separate Sanitary Sewer Basins that are anticipated (based on recent experience) to be required by developers to proceed with the development in capacity limited basins. The cost estimate represents the City's share of a larger project that is needed, with the developer funding its portion of the project and perhaps building the larger project.

This project category consists of presently un-identified individual projects which would be developed as developers identify a desire to develop or re-develop land in capacity limited basins. The solution to their need for unavailable capacity, may be solved by on-site facilities that would be their responsibility. However, if a solution is needed for capacity relief beyond their need, and if a project might be developed either as a part of a total solution, or the total solution itself, the City may choose to participate in the cost, ahead of when the capacity relief solution required by the First Amended Consent Decree might otherwise be performed. The overall cost estimate for capacity relief projects required by the First Amended Consent Decree in the separate sanitary sewer basins was established based on the Peak Flow Evaluation Study for Sewer Group One and extrapolated for the other three Sewer Groups in the separate sanitary sewer basins. The related project category to this is the CSO Interim Relief Projects for the combined sewer basins.

The projects that may be identified could involve storage tanks or pipes, parallel relief pipes, or upsized pipes

Justification

Projects in this category are justified to allow development to proceed ahead of the schedule required by the First Amended Consent Decree (Paragraph VIII.C.8) for capacity relief required by the First Amended Consent Decree (Paragraph VIII.C.6).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
10,956	0	10,956	0	2,639	4,000	4,000	317	0	0	0

* Amounts in thousands of dollars

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Program Management Services (SSO)

Order	502		
Project Manager	Rob Hunter		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	New	End Date	2007
Project Category	Annual Contract	WBS No.	08.01.091
NPU	ALL	Council	ALL
Facility	Other	Status	Unfunded

Description

This includes the Program Management Services for the Clean Water Atlanta Program associated with the Consent Decree and First Amended Consent Decree projects, as well as Regulatory Compliance, and System Renewal or Operational Reliability projects. The program management services include: cost and schedule management, CSO remedial plan implementation, SSO remedial plan implementation, hydraulic modeling, land acquisitions, capacity certification, SSES, CSO Sampling, Water Quality Monitoring, GIS/Mapping, EPA Coordination (reporting), MOMS implementation, Public Information, and Interagency Relations/Funding.

Justification

Program management assistance to the Department of Watershed Management is necessary to maintain compliance with provisions of the CSO Consent Decree and the First Amended Consent Decree (FACD).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
41,485	12,474	29,011	0	11,975	9,520	7,516	0	0	0	0

* Amounts in thousands of dollars

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Construction Management Services

Order	503		
Project Manager	Marcia Hurd-Wade		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	New	End Date	2007
Project Category	Annual Contract	WBS No.	08.99.001
NPU	ALL	Council	ALL
Facility	Other	Status	Unfunded

Description

To provide Construction Management services for Consent Decree capital improvement projects. Services during final design include construction planning, contract packaging, and value engineering and constructability reviews. Services during construction include project management, construction management, construction administration, resident construction oversight, inspection, and testing coordination.

Justification

Due to the high level of construction activity and the stringent construction deadlines associated with the Consent Decrees, it is imperative that the City maintain construction management staffing at levels above that which would normally be provided by City personnel, and that continuity of staffing be maintained from project to project.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
8,000	0	8,000	0	1,000	1,000	1,000	1,000	1,000	1,000	2,000

* Amounts in thousands of dollars

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Large Diameter - Clean, Find and Fix Contract - Annual Contract

Order	505		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovation	End Date	2014
Project Category	Annual Contract	WBS No.	08.01.003
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

The purpose of this project category is to provide rehabilitation of individual large-diameter sanitary sewers as well as emergency rehabilitation work identified by the Sewer Operations and Sewer Reconnaissance groups. Rehabilitation is needed to prolong the life of the existing system, to prevent catastrophic failures, and to remove extraneous flows that cause capacity problems in the separate sanitary sewers which might result in overflows, and that might require larger treatment plants.

This Contract targets non-man entry sanitary sewers sized between 18"- 48" in diameter. Sewers of these larger diameters need specialized cleaning techniques due to both the amount of debris contained therein, as well as their typically difficult access locations. The vacuum trucks utilized by City forces and the SSES Program are not suited for this task. In addition to removing debris from these trunk sewers, this Contract will also perform CCTV & Sonar reconnaissance on these lines to identify collapses and holes and make the appropriate point repairs. This Contract will be a critical aid to the Flow Modeling Program as holes in trunk sewers have been identified as the single biggest problem to obtaining accurate flow information. Currently the City relies upon this work to identify and eliminate this inflow problem.

Justification

Flow monitoring and field observations have identified inflow (holes) in trunk sewers as a major component of the City's capacity problems. This contract will deal directly with this problem. Large sewers need specialized solutions due to high flows, high costs, and targeted remediation.

Rehabilitation is anticipated to extend the life of these assets by 50 years while reducing inflow and infiltration (I/I) into the system. (I/I is extraneous flow into the system through cracks, holes, etc.) Reducing I/I decreases the quantity of flow in the system. This reduces the potential for overflows, reduces capacity problems, reduces the quantity of flow which must be treated at the treatment plants, and avoids unnecessarily increasing the size of pipelines and treatment plants to accommodate I/I. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7) and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
42,000	0	42,000	3,259	0	4,948	6,519	6,519	6,519	4,948	9,288

* Amounts in thousands of dollars

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Large Diameter Sewer Rehabilitation - Annual Contract

Order	506		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovation	End Date	2012
Project Category	Annual Contract	WBS No.	08.01.002
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

The purpose of this project category is to provide rehabilitation of individual large-diameter sanitary sewers as well as emergency rehabilitation work identified by the Sewer Operations and Sewer Reconnaissance groups. Rehabilitation is needed to prolong the life of the existing system, to prevent catastrophic failures, and to remove extraneous flows that cause capacity problems in the separate sanitary sewers which might result in overflows, and that might require larger treatment plants.

This Contract covers the rehabilitation and maintenance of the man-entry combined sewers in the City's collection system (48" diameter and larger). The Contract will utilize high-strength, wear-resistant epoxy technologies and other methods as appropriate to rehabilitate these larger sewers. In addition the Contract will also involve cleaning and debris removal for these sewers, a void-identification and grouting program and rehabilitation of the manholes.

Justification

Rehabilitation is anticipated to extend the life of these assets by 50 years while reducing inflow and infiltration (I/I) into the system. (I/I is extraneous flow into the system through cracks, holes, etc.) Reducing I/I decreases the quantity of flow in the system. This reduces the potential for overflows, reduces capacity problems, reduces the quantity of flow which must be treated at the treatment plants, and avoids unnecessarily increasing the size of pipelines and treatment plants to accommodate I/I. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7) and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
39,270	0	39,270	3,259	0	4,948	6,519	6,519	6,519	4,948	6,558

* Amounts in thousands of dollars

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Small Diameter Sewer Rehabilitation - Annual Contract

Order	507		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovation	End Date	2012
Project Category	Annual Contract	WBS No.	08.01.001
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

The purpose of this project category is to provide rehabilitation of individual sewersheds as well as emergency rehabilitation work identified by the Sewer Operations and Sewer Reconnaissance groups. Rehabilitation is needed to prolong the life of the existing system, and to remove extraneous flows that cause capacity problems in the sewers which might result in overflows, and that might require larger treatment plants.

This project is a modification of the previous Annual Cured-in-Place Pipe Contract. The contract scope is the same as for the sewershed rehabilitation contracts for Sewer Groups 1 – 6 and allows the Department of Watershed Management critical flexibility to respond to emergency project needs. It also allows the Department flexibility to respond to needs that may not be scheduled in the Consent Decree-required non-contiguous priority groupings of sewersheds by Sewer Groups. Over time, as the sewer group rehabilitation contracts are implemented, it is anticipated that the size of this Small Diameter Rehabilitation – Annual Contract will diminish.

This project category consists of presently un-identified individual projects that will be developed as described above. The projects that will be identified could involve rehabilitating sewers by cured-in-place pipe lining techniques, pipe bursting, horizontal directional drilling and conventional excavation. Manholes will also be rehabilitated under this contract. The ability to perform installation of house connection clean-outs and lateral rehabilitation are also included in this Contract.

Justification

This is a necessary tool for the City for reducing I/I and performing Emergency Sewer Repairs.

Rehabilitation is anticipated to extend the life of these assets by 50 years while reducing inflow and infiltration (I/I) into the system. (I/I is extraneous flow into the system through cracks, holes, etc.) Reducing I/I decreases the quantity of flow in the system. This reduces the potential for overflows, reduces capacity problems, reduces the quantity of flow which must be treated at the treatment plants, and avoids unnecessarily increasing the size of pipelines and treatment plants to accommodate I/I. This work is required as part of the First Amended Consent Decree (FACD), (Paragraph VIII.C.7) and Paragraph VIII.C.8).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
73,171	7,600	65,571	8,387	10,090	10,090	6,287	6,287	6,287	4,193	13,952

* Amounts in thousands of dollars

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Flow Monitoring and Inspections

Order	508		
Project Manager	Lance Clark		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovation	End Date	2014
Project Category	Annual Contract	WBS No.	08.01.004
NPU	ALL	Council	ALL
Facility	Collection	Status	Partially Funded

Description

1. Provide approximately 25 temporary flow monitors, maintenance, and data gathering for the first six months of 2005 and a similar scope for the first six months of 2006 to support the hydraulic modeling of the City's sanitary and combined sewer system.
2. Provide ongoing maintenance on the existing "permanent" 125 flow monitors and 32 rain gages and data gathering/reporting.
3. Provide 1 year demo of a web-based interactive alarm, data analysis, and display system.

Justification

The First Amended Consent Decree (FACD) (Paragraph VIII.C.1.) required a System-Wide Flow and Rainfall Monitoring Plan, which was prepared and approved. The Plan includes 125 Flow Monitors and 32 Rain Gages which were brought by the City, but need to be maintained and data gathered, a service performed to date by annual contract with ADS. In addition Temporary Flow Monitors are required by the FACD as part of the Hydraulic Modeling required to be performed Sewer Group by Sewer Group. Temporary monitoring is being performed for sewer Group 4, but will be needed for Sewer Group 5 in 2005 and Sewer Group 6 in 2006. Another element of the current Flow Monitoring Contract, a web based interactive feature, was added to the contract scope in 2002 – the IntelliScan system of ADS' (the current Contractor).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
17,735	3,819	13,916	3,701	1,135	1,135	1,135	1,135	1,135	1,135	3,405

* Amounts in thousands of dollars

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Pipeline Assessment, CCTV Inspection and Cleaning - Annual Contract

Order	510		
Project Manager	Lance Clark		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovation	End Date	2014
Project Category	Annual Contract	WBS No.	08.01.006
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

Citywide program of closed circuit TV (CCTV) inspection of existing pipeline condition and heavy cleaning.

Following the completion of the SSES Activities two categories of on-going inspection will be needed. The first category identifies sewers requiring immediate rehabilitation. This work will be accomplished by the Sewer Group 1-6 sewer rehabilitation work and the ongoing annual sewer rehabilitation contracts.

This project accomplishes the second category of needed work and provides routine sewer maintenance including, cleaning, root treatment, replacement of clean-out covers and CCTV monitoring, including any necessary remedial action.

Justification

The First Amended Consent Decree, paragraph V.B.III requires the routine assessment, inspection and cleaning of the sewer system.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
17,250	0	17,250	750	0	750	750	1,875	1,875	1,875	9,375

* Amounts in thousands of dollars

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ROW Clearing - Annual Contract

Order	511		
Project Manager	Lowell Chambers		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovation	End Date	2014
Project Category	Annual Contract	WBS No.	08.01.007
NPU	ALL	Council	ALL
Facility	Collection	Status	Unfunded

Description

This contract provides ongoing clearing of the wastewater collection system ROW as necessary to facilitate the maintenance on sewer easements and provides maintenance and establishment of necessary temporary construction access roads to accomplish the work.

The City maintains approximately 250 miles of sewer easements, of which, approximately 150 miles requires periodic clearing.

Justification

Routine Inspection includes the requirement under the First Amended Consent Decree V.B.IV, to control vegetative growth in the Sewer Right of Ways.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
6,050	0	6,050	550	0	550	550	550	550	550	2,750

* Amounts in thousands of dollars

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Fulton County Camp Creek Reserve Capacity

Order	551		
Project Manager	Rob Hunter		
Program	First Amended Consent Decree (SSO)	Start Date	2003
Type	New	End Date	2004
Project Category	Payment	WBS No.	04.16.356
NPU	OUTSIDE CITY LIMITS	Council	OUTSIDE CITY LIMITS
Facility	Other	Status	Unfunded

Description

Project consists of payment to Fulton County for the City of Atlanta's proposed reserve capacity in Fulton's Camp Creek Wastewater Treatment Facility. Fulton owns and operates the Camp Creek Wastewater Facility. Atlanta has reserve capacity of 2.48 MGD within the existing 19 MGD Camp Creek facility. All flow from Atlanta's Camp Creek sewer basin is routed to Fulton's Camp Creek Facility. Fulton is upgrading and expanding the Camp Creek facility from 19 MGD to 24 MGD. Atlanta proposes to increase its reserve capacity from 2.48 MGD to 3.6 MGD (15% of 24 MGD), based on projected future flows from the Camp Creek sewer basin. The total estimated cost of the expanded Camp Creek facility is \$81,396,700. Atlanta's calculated share for 3.6 MGD of reserve capacity (15% of 24 MGD) is \$12,209,505.

Justification

The First Amended Consent Decree (FACD) requires the City to certify that adequate sewer capacity is available within the collection system and treatment facilities. This project assures that treatment capacity will be available for the City of Atlanta flows from the Camp Creek sewer basin.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
12,210	0	12,210	12,210	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Inman Park

Order	601		
Project Manager	Lance Clark		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	New	End Date	2005
Project Category	Collection & Transmission	WBS No.	05.95.001
NPU	E,F,M,N,O,W	Council	1,2,5,6
Facility	Collection	Status	Partially Funded

Description

The project consists of installing about 240 feet of a 60" diameter combined relief sewer to divert combined sewer flow for Austin Avenue to Atlantis Avenue and about 120 feet of 84" diameter relief sewer to divert combined flow from Atlantis Avenue to Elizabeth Street. Installation of about 300 feet of new 36" storm sewer and 11 catch basins in Austin Avenue and about 230 feet 16" diameter sanitary sewer is also included.

Justification

This project is required to eliminate a localized flooding problem which when corrected would cause a capacity limitation in the combined sewer system and be required to be corrected by the First Amended Consent Decree (Paragraph VIII.C.6).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,510	1,510	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Rock and Vine Streets Sewer Project

Order	603		
Project Manager	George Barnes		
Program	First Amended Consent Decree (SSO)	Start Date	2003
Type	New	End Date	2009
Project Category	Collection & Transmission	WBS No.	05.92.004
NPU	E,K,L,M,T	Council	2,3,4,8
Facility	Collection	Status	Partially Funded

Description

The purpose of this project is to provide combined sewer capacity relief within the North Avenue CSO Basin and flood relief in the Vine City community. The proposed relief system would allow the flow volume, typically stored on surface streets, to enter the collection system. The excess flow volume would be diverted and captured in a deep tunnel system connected to the proposed West Area CSO Tunnel system at the North Avenue CSO Facility flow intake location. The system could provide relief in the Vine City and area communities up the 25 year storm.

The project consists of upsizing approximately 1,100' of the existing Mineral Springs Trunk sewer, a new diversion and inflow structure to divert flow to a tunnel approximately 7,000' long with a finished diameter up to 26'. The tunnel would connect with the West Area CSO Storage Tunnel. Acquisition of approximately 13 acres of land is included in the project.

Justification

This project is required to eliminate a localized flooding problem and a capacity limitation in the combined sewer system which would be required to be corrected by the First Amended Consent Decree (FACD) (Paragraph VIII.C.6.) by the schedule in the FACD (Paragraph VIII.C.8.).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
67,330	12,320	55,010	0	0	0	5,500	12,000	37,510	0	0

* Amounts in thousands of dollars

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Butler Street/Highland Ave Trunk Relief Phase I

Order	604		
Project Manager	George Barnes		
Program	First Amended Consent Decree (SSO)	Start Date	2005
Type	New	End Date	2005
Project Category	Collection & Transmission	WBS No.	05.94.001
NPU	E,F,M,N,O,W	Council	1,2,5,6,7
Facility	Collection	Status	Unfunded

Description

This project is to provide capacity relief improvements to the Butler Street and Highland Ave combined sewers, and provides flood relief to those drainage basins up to the 25 year storm.

The project consists of two major elements, the Butler-Highland Relief Sewer system and a storage tunnel branching from the West Area CSO Tunnel at the Clear Creek CSO Inlet. The relief sewer system consists of surface improvements and structures, a 17' x 14' arch tunnel about 500 feet in soft ground and 860 feet tunneling in mixed conditions, and hard rock tunneling 1150 feet of 10' diameter, 1000 feet of 13' diameter, and 1570 feet of 16' diameter tunnels. The branch tunnel for storage consists of about 1.4 miles of 27' diameter tunnel in hard rock, drop shaft, and control gate system. This first phase is for engineering and is scheduled to be performed prior to the completion of construction of the West Area CSO Tunnel.

Justification

This project is required to eliminate basin-wide flooding problems and capacity limitations in the combined sewer system, which are required to be corrected by the First Amended Consent Decree (FACD) (Paragraph VIII.C.6.) by the schedule in the FACD (Paragraph VIII.C.8.).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
5,000	0	5,000	0	725	4,275	0	0	0	0	0

* Amounts in thousands of dollars

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Butler Street/Highland Ave Trunk Relief Phase II & III

Order	605		
Project Manager	George Barnes		
Program	First Amended Consent Decree (SSO)	Start Date	2008
Type	New	End Date	2010
Project Category	Collection & Transmission	WBS No.	05.94.002
NPU	E,F,M,N,O,W	Council	1,2,5,6,7
Facility	Collection	Status	Unfunded

Description

This project is to provide capacity relief improvements to Butler Street and Highland Ave combined sewers, and provides flood relief to those drainage basins up to the 25 year design storm.

The project consists of two major elements, the Butler-Highland Relief Sewer system and a storage tunnel branching from the West Area CSO Tunnel. The relief sewer system consists of surface improvements and structures, a 17' x 14' arch tunnel about 500 feet in soft ground and 860 feet tunneling in mixed conditions, and hard rock tunneling 1150 feet of 10' diameter, 1000 feet of 13' diameter, and 1570 feet of 16' diameter tunnels. The branch tunnel for storage consists of about 1.4 miles of 27' diameter tunnel in hard rock, drop shaft, and control gate system. Phases II & III include construction bidding and construction.

Justification

This project is required to eliminate basin-wide flooding problems and capacity limitations in the combined sewer system, which are required to be corrected by the First Amended Consent Decree (FACD) (Paragraph VIII.C.6.) by the schedule in the FACD (Paragraph VIII.C.8.).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
112,500	0	112,500	0	0	0	18,443	0	50,000	44,057	0

* Amounts in thousands of dollars

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Boulevard Trunk Outflow Management

Order	606		
Project Manager	Lance Clark		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovation	End Date	2005
Project Category	Collection & Transmission	WBS No.	05.92.006
NPU	V,W,Y,Z	Council	1,2,4,5
Facility	Collection	Status	Unfunded

Description

The purpose of this project is to insure that the existing storm inlets to the combined sewer do not allow outflow.

The project consists of renovating two existing openings in the Boulevard combined sewer trunk line to raise the inverts above the hydraulic grade line for the 25-year storm. New grates at the raised inlets are included in the project. Regrading the area surrounding the inlets will allow site stormwater to enter the renovated inlets.

Justification

The possibility exists that outflow from the combined sewer could occur because the inlet elevation is below the top of the pipe and below the hydraulic grade line for the 25-year storm as determined by hydraulic modeling. Outflow is required to be eliminated by the First Amended Consent Decree (Paragraph VIII.C.6.).

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
675	0	675	300	375	0	0	0	0	0	0

* Amounts in thousands of dollars

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Riverside Outfall Capacity Relief

Order	607		
Project Manager	Rob Hunter		
Program	First Amended Consent Decree (SSO)	Start Date	2005
Type	Renovation	End Date	2007
Project Category	Collection & Transmission	WBS No.	04.17.320
NPU	D,G,H	Council	9
Facility	Collection	Status	Unfunded

Description

This project involves construction of a replacement sewer for the Riverside Outfall that is larger than the existing sewer, which is capacity limited. The replacement sewer consists of 2,850 LF of 18-inch and 5,300 LF of 24-inch pipe, between James Jackson Parkway and Bolton Road Pump Station

Justification

This project is required to eliminate a capacity limitation in Sewer Group 2 as required by the First Amended Consent Decree (Paragraph VIII.C.6). In addition, this project is required to be completed before the Chattahoochee Village development can connect to the sewer and the Certificate of Occupancy can be issued.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
7,683	0	7,683	300	7,383	0	0	0	0	0	0

* Amounts in thousands of dollars

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Reserve for Appropriations - First Amended Consent Decree (SSO)

Order	620		
Project Manager	Calculation		
Program	First Amended Consent Decree (SSO)	Start Date	2004
Type	Renovation	End Date	2014
Project Category	Reserve	WBS No.	99.02.006
NPU	ALL	Council	ALL
Facility	Other	Status	Unfunded

Description

These reserve amounts are established for the Clean Water Atlanta capital projects in the event of significant increases in the scope and cost of identified projects, or for new projects not foreseen at this time that are related to implementation of projects identified in the CIP, or for other justifiable and unforeseen factors. These amounts are in addition to any reserve for appropriations established by the Finance Department related to any bond obligation requirement. This reserve may be funded, as needed, by short term debt instruments, if not funded via bond funds.

Justification

It is prudent to plan for unforeseen project costs at the initial phase of this large and comprehensive capital projects undertaking.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
71,597	0	71,597	4,712	5,169	7,544	12,085	8,440	17,392	12,474	3,780

* Amounts in thousands of dollars

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RM Clayton - Adjacent Property Acquisition

Order	300		
Project Manager	Larry Harrod		
Program	Regulatory or Contract Compliance	Start Date	2005
Type	New	End Date	2006
Project Category	Special Projects	WBS No.	02.17.021
NPU	A,C,D	Council	8,9
Facility	Other	Status	Unfunded

Description

This project involves the purchase of fourteen acres along the southeastern bank of the Chattahoochee River, between the western edge of the RM Clayton WRC and the CSX rail road line.

Justification

This property is immediately adjacent to the WRC and along the Chattahoochee River. Ownership of this property would provide additional buffer, room for potential growth, and continued preservation of this section of stream bank along the Chattahoochee River.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,711	0	2,711	2,711	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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RM Clayton - Compliance Upgrades

Order	301		
Project Manager	Larry Harrod		
Program	Regulatory or Contract Compliance	Start Date	2002
Type	Renovation	End Date	2006
Project Category	RM Clayton	WBS No.	02.17.900
NPU	A,C,D	Council	8,9
Facility	R.M. Clayton WRC	Status	Partially Funded

Description

This project includes the five major groups of upgrades and modifications listed below. Key items of work are listed for each of the five groups. The justification for the work is enumerated at the far right of each group; consult legend in Justification section below:

1. Modifications to Mixed Liquor Pump Station including replacement of the pump isolation valves on the suction and discharge side, providing redundant control power wiring , relocating all electrical and controls panels out of the basement.—1,2,3,6,
2. Hydraulic Modifications to improve process flow including structural modifications to the Primary Influent Channel and modification of the Secondary Clarifier WAS/RAS system hydraulics.— 1,4,6
3. The performance of a full plant short circuit and harmonic study.—1,4,6
4. Electrical Upgrades including replacement of the 5 Kv Switchgear, updating electrical and process control panels, Foxboro upgrades, providing redundant power to various process-related control panels, and installing liquid level detection and monitoring—1,2,3,6
5. Miscellaneous Operational Upgrades including upgrading freeze protection at the secondary facilities, replacement of the TWAS centrifuge, upgrading the effluent filtration system, and upgrading the sodium hypochlorite storage and feed system.—2,3,5,6

Justification

The following list summarizes the justification for the above project elements. Each project element above lists the requirements that are driving each need to the right of the project title according to the following legend:

1. Code/Permit Compliance
2. Equipment Maintenance/Repair
3. Replacement of Aged/Damaged Assets
4. Capacity Improvement
5. Treatment Improvement
6. Process Control Improvement
7. Safety

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
13,601	2,457	11,144	1,367	9,777	0	0	0	0	0	0

* Amounts in thousands of dollars

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RM Clayton - Grit Removal

Order	308		
Project Manager	Larry Harrod		
Program	Regulatory or Contract Compliance	Start Date	2004
Type	Renovation	End Date	2005
Project Category	RM Clayton	WBS No.	02.17.940
NPU	A,C,D	Council	8,9
Facility	R.M. Clayton WRC	Status	Unfunded

Description

The existing headworks influent channels will have fillets placed at the corners to prevent siltation. The grit system upgrades will be comprised of four new cyclone type grit concentrators and associated grit classifiers; four relocated screenings liquid separators, mounted on a platform; grit and screenings storage containers; bridge crane; odor control and heating and ventilation ductwork, heaters and fans; and all other appurtenances.

New mechanical/hydraulic fluidizers, pumps and appurtenances will be installed on the four existing vortex grit tanks and piped to the grit classifiers. The four existing screenings pumps will be replaced with larger submersible type pumps and controls. Two new bridge cranes and two jib cranes will be installed in the bar screen room to facilitate preventive maintenance on the screens. A new disinfection system will be installed at the headworks for flows in excess of the plant capacity. The existing isolation sluice gates will be modified to accommodate greater flows through the bar screens, grit tanks, and the drum screens.

Justification

Upgrades to the Headworks grit system are required immediately to minimize down time caused by damage and plugging of headworks and downstream equipment, piping, and process treatment structures and tanks that affects the Plant's ability to meet the NPDES permit and other requirements consistently. Permit violations can be detrimental to the City.

The plant flows fluctuate daily, to in excess of 230MGD. These flow variations result in grit being alternately deposited and flushed at low and high flows, causing the plant to be slugged with grit to a point that the equipment, piping and process tanks are overwhelmed and failures occur. The plant is not equipped or staffed adequately to handle these massive failures. Typically, pumps, and piping and process equipment have to be disassembled for unplugging, repair and/or replacement and reassembled, process tanks taken out of service (each 2 million gallons) one by one, and grit and trash vacuumed out. These steps have to be taken each time heavy rains occur, several times a year. This is expensive and time consuming. In addition, the City is in the process of renewing the NPDES permit with Georgia EPD which it anticipated to be more stringent than the current permit to meet the proposed "Metro Limits". Meeting these new limits, when the plant flows are steadily increasing due to accelerated growth in the Clayton Plant's basins, will be compromised without these

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
4,446	0	4,446	4,446	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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South River - Clarifier Upgrades

Order	331		
Project Manager	Paula Days		
Program	Regulatory or Contract Compliance	Start Date	2003
Type	Renovation	End Date	2005
Project Category	South River	WBS No.	02.18.900
NPU	Z	Council	1,12
Facility	South River WRC	Status	Funded

Description

This project includes operational upgrades that are necessary to eliminate conditions that may lead to permit violations. Work includes rehabilitation of six secondary clarifier mechanisms, replacement of six secondary clarifier drives, demolition of the existing secondary scum system and installation of new pumps, piping, valves, spray systems.

Justification

This project includes upgrades that are related to NPDES permitting requirements. Facilities covered herein were not included in the Senate Bill 500 Phosphorus Control Upgrades and require rehabilitation.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,318	2,318	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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South River Energy System Reliability Improvements

Order	333		
Project Manager	David Winters		
Program	Regulatory or Contract Compliance	Start Date	2003
Type	New	End Date	2005
Project Category	South River	WBS No.	02.14.040
NPU	Z	Council	1,12
Facility	South River WRC	Status	Unfunded

Description

This project includes the addition of a power electronic switch (PES) to speed up the switching of power between the existing dual power feed lines. This will eliminate many of the equipment shutdowns caused by power failure. Project is intended to be funded from a municipal lease, but may be reduced in scope and funded from capital funds. (\$3.1 million if funded from municipal lease. \$1.1 million if funded from capital funds.)

Justification

The time required for power transfer with the existing mechanical switchgear causes equipment to shut down. The new switchgear transfers power faster between the dual power feeds so the equipment does not shut down.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,100	0	1,100	100	1,000	0	0	0	0	0	0

* Amounts in thousands of dollars

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South River - Effluent Main Re-aeration Facility

Order	335		
Project Manager	Paula Days		
Program	Regulatory or Contract Compliance	Start Date	2004
Type	Renovation	End Date	2008
Project Category	South River	WBS No.	02.18.915
NPU	Z	Council	1,12
Facility	South River WRC	Status	Unfunded

Description

This project includes design, permitting, and bid phase services for the Reaeration Facility for the South River Effluent Force Main.

Justification

Problems have been experienced in meeting the 5.0 mg/L dissolved oxygen content required by the South River NPDES permit at the discharge end of the South River Effluent Force Main. Under the "New Metro Limits", the dissolved oxygen standard is anticipated to be raised from 5.0 mg/L to 6.0 mg/L, or possibly 7.0 mg/L. This project provides the design for a reaeration facility which would provide additional aeration of the South River effluent at the discharge end of the effluent main.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,725	375	1,350	0	1,350	0	0	0	0	0	0

* Amounts in thousands of dollars

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Intrenchment Creek WRC General Improvements

Order	341		
Project Manager	Paula Days		
Program	Regulatory or Contract Compliance	Start Date	2003
Type	Renovation	End Date	2005
Project Category	Intrenchment Creek	WBS No.	02.20.902
NPU	W,Y,Z	Council	1
Facility	Intrenchment Creek WRC	Status	Funded

Description

This project includes upgrading the grit removal system at the headworks, providing a permanent repair for the previously damaged section of the South River effluent force main, replacing Primary Sludge Pump No. 6 with a centrifugal pump (including all associated electrical upgrades) and upgrading exterior plant lighting.

Justification

The grit removal process at the headworks currently causes significant wear on the conveyance system components. These upgrades will improve grit collection and ensure continuous operation of the grit removal system which is necessary for NPDES permit compliance.

In 1998 the SR effluent main was damaged and a temporary repair was made. This work will verify that the previous repair is adequate or a permanent repair will be constructed. Failure of this line would preclude all discharge from the South River WRC.

Recurring problems with Primary Sludge Pump No. 6 necessitate its replacement.

The existing high mast lights can no longer be raised and lowered for maintenance. Upgrading and/or replacing these lights will increase the cost effectiveness of providing exterior lighting for the plant.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,677	1,677	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Flint River Pump Station Replacement

Order	355	Start Date	2009
Project Manager	John Reinhard	End Date	2011
Program	Regulatory or Contract Compliance	WBS No.	03.05.002
Type	Renovation	Council	OUTSIDE CITY LIMITS
Project Category	Pump Stations	Status	Unfunded
NPU	OUTSIDE CITY LIMITS		
Facility	Flint River PS		

Description

This project includes replacing the existing 15 mgd, two-stage pump station with a single stage submersible pump station (up to 25 mgd) with 5 million gallons of storage. The work includes building a new pump station on the existing site and rehabilitating the existing pump station. The site for the new pump station and the replacement date will be determined by the master plan, the Program Management Team hydraulic study, the Airport expansion impacts, and the PSAT energy study.

Justification

The existing two-stage pumping system is not energy efficient. Peak flows (+17 mgd) exceed the present capacity of the pump station (14.5 mgd). The existing pump station is a retrofit and cannot be easily maintained.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
10,000	0	10,000	0	0	0	0	0	10,000	0	0

* Amounts in thousands of dollars

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Flint River Force Main Phase I

Order	372		
Project Manager	John Reinhard		
Program	Regulatory or Contract Compliance	Start Date	2003
Type	Renovation	End Date	2005
Project Category	Force Main	WBS No.	09.02.901
NPU	Y,Z	Council	1,12
Facility	Collection	Status	Partially Funded

Description

Phase 1 of the Flint River Force Main project includes the replacement of sections of the 24" Flint River Transmission Main that are determined to be a public safety hazard. (Work includes both gravity and pressurized sections). These sections will be replaced with 30" lined DIP.

Phase 1A replaced 1405 feet of pipe from the high point (STA 149+50) to the railroad tracks (STA 135+33).

Phase 1B will replace a 3200 foot section along School Drive and Jonesboro Rd (STA 54.90 to STA 24+00) and includes some point repairs and the installation of the force main pedestrian barrier at the South River crossing.

The Phase 1C scope will be determined upon completion of the pipeline evaluation survey and will replace deteriorated sections of the gravity and pressurized pipe.

Justification

The pipeline has experience significant deterioration in various locations due to hydrogen sulfide attack. The extent of replacement needed due to corrosion continues to be evaluated at this time. Future increased capacity needs rule out slip lining the pipe and support increasing the size of the line.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
9,000	0	9,000	9,000	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Flint River Force Main Phase II

Order	373		
Project Manager	John Reinhard		
Program	Regulatory or Contract Compliance	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Force Main	WBS No.	09.02.902
NPU	Y,Z	Council	1,12
Facility	Collection	Status	Unfunded

Description

Phase 2 of the Flint River Force Main project includes replacing the remaining 24" diameter gravity portion of the pipeline. This includes from STA24+00 to the start of the DOT SR54 upgrade (STA6+50) and from the end of the DOT SR54 upgrade to the end of the pipeline, including the portion of the pipeline located within the South River WRC. These sections will be replaced with 30" lined DIP. Total replacement length is estimated at 2,750 ft.

Justification

The pipeline has experience significant deterioration in various locations due to hydrogen sulfide attack. The extent of replacement needed due to corrosion is being evaluated at this time. Future increased capacity needs rule out slip lining the pipe and support increasing the size of the line.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,920	0	2,920	0	320	2,600	0	0	0	0	0

* Amounts in thousands of dollars

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Flint River Force Main Phase III

Order	374		
Project Manager	John Reinhard		
Program	Regulatory or Contract Compliance	Start Date	2007
Type	New	End Date	2008
Project Category	Force Main	WBS No.	09.02.903
NPU	Y,Z	Council	1,12
Facility	Collection	Status	Unfunded

Description

This work includes replacing the existing force main from the Flint River pump station to the high point located at the intersection of Central Avenue with Brown's Mill Road with approximately 15,000 linear feet of 30-inch DIP.

Justification

Corrosion analysis in conjunction with capacity requirements is anticipated to dictate that this entire section of the line be replaced. (Peak flow to the pump station currently equals available capacity.) Growth projections determined as part of the Watershed Master Plan, in conjunction with hydraulic modeling, will determine when the capacity is expected to be

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
12,000	0	12,000	0	0	0	1,200	10,800	0	0	0

* Amounts in thousands of dollars

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Watershed Monitoring Program

Order	484		
Project Manager	Tracy Hillick		
Program	Regulatory or Contract Compliance	Start Date	2001
Type	Renovation	End Date	2007
Project Category	Special Projects	WBS No.	07.03.001
NPU	ALL	Council	ALL
Facility	Other	Status	Partially Funded

Description

The following tasks will be performed to implement the Watershed Monitoring Program for all major watersheds within City limits, including Nancy, Peachtree, Proctor, Sandy, Lullwater, Utoy Creeks as well as the South River:

Task 1-Project initiation, organization and planning;

Task 2-Station selection, setup and installation to meet the monitoring objectives of the program, and develop a network that collects reliable data;

Task 3-Water quality monitoring, maintenance, and data retrieval;

Task 4-Biological monitoring to evaluate (biannually) the response of biotic integrity to watershed improvements;

Task 5-Data management and reporting;

Task 6-Public involvement;

Task 7-Watershed management plan to develop realistic, flexible frameworks for watershed management that improve aquatic and biotic integrity and can be successfully implemented.

Justification

Implementation of a comprehensive Long-term Monitoring Program for all major watersheds within the City Limits, will enable the collection of data needed to satisfy current and potential future regulatory requirements and meet other program

objectives, as follows:

- Document stream improvements and any pollutant reduction attributed to the Clean Water Atlanta implementation.
- Relieve the City of the event-driven SSO Consent Decree requirements
- Consolidate water quality and discharge sampling requirements
- Satisfy Watershed Management Plan requirements associated with future wastewater discharge permit expansions
- Assess baseline conditions and identify sources of impairment
- Document stream improvements and identify new programs to address streams requiring further action
- Implement a public involvement program to educate and involve the public, which in turn provides the mandate for elected officials to balance economic development with environmental protection.
- Provide a data management system to efficiently utilize available data, by developing a framework that helps store,

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
8,583	2,813	5,770	5,770	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Bio-Solids Management Services

Order	486		
Project Manager	Marcia Hurd-Wade		
Program	Regulatory or Contract Compliance	Start Date	2003
Type	Renovation	End Date	2009
Project Category	Special Projects	WBS No.	07.79.001
NPU	ALL	Council	ALL
Facility	Various	Status	Partially Funded

Description

This project is for the capital portion of the Long-Term Biosolids Management Services Contract (FC-7338-01). The Long-Term Biosolids Management Services Contract project includes biosolids management at the RM Clayton, Utoy Creek, South River and Intrenchment Creek WRC's.

Justification

In 2002 the City signed a contract with US Filter for the phased implementation of the long-term biosolids management services. These services include the design, construction, operation and maintenance of a well-managed, efficient and cost-effective Biosolids system capable of satisfying the Total Beneficial Reuse Milestone.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
41,848	18,148	23,700	0	18,700	5,000	0	0	0	0	0

* Amounts in thousands of dollars

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Watershed Master Plan

Order	560		
Project Manager	Jerri Russell		
Program	Regulatory or Contract Compliance	Start Date	2003
Type	New	End Date	2005
Project Category	Special Projects	WBS No.	05.28.001
NPU	ALL	Council	ALL
Facility	Other	Status	Funded

Description

The overall scope of work is to develop and implement a Watershed Master Plan (WMP) that provides a long-range planning basis for the development of the City's watershed systems and facilities. The WMP will identify projects anticipated to be needed over the next 25 years, and will provide cost and scheduling information appropriate for the anticipated timeframe of the project development. The WMP will be based on the City's planning vision and financial plan, as well as regional and inter-jurisdictional watershed planning. The WMP will include projects associated with regulatory requirements, infrastructure needs, and cost-reduction opportunities. The scope of work includes developing the system and procedures necessary to provide for the ongoing maintenance and development of the Watershed Master Plan by City staff. Due to the funding source (water and sewer bonds) the work is limited to the water and wastewater systems, except as stormwater is directly related to water and wastewater work (CSO's, TMDL's, etc.)

Justification

This project develops a coordinated planning basis for developing Wastewater System projects. In doing so the project provides for the realization of significant cost-savings to the City as a result of advanced identification of City needs, ability to focus time and effort in the correct places, providing adequate time to accomplish necessary objectives such that work can be properly completed the first time around, and avoiding duplication of work by coordinating cross-departmental efforts.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,500	3,500	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Subsection Wastewater

Reserve for Appropriations - Regulatory or Contract Compliance

Order	625		
Project Manager	Calculation		
Program	Regulatory or Contract Compliance	Start Date	2004
Type	Renovation	End Date	2014
Project Category	Reserve	WBS No.	99.02.007
NPU	ALL	Council	ALL
Facility	Other	Status	Unfunded

Description

These reserve amounts are established for the Clean Water Atlanta capital projects in the event of significant increases in the scope and cost of identified projects, or for new projects not foreseen at this time that are related to implementation of projects identified in the CIP, or for other justifiable and unforeseen factors. These amounts are in addition to any reserve for appropriations established by the Finance Department related to any bond obligation requirement. This reserve may be funded, as needed, by short term debt instruments, if not funded via bond funds.

Justification

It is prudent to plan for unforeseen project costs at the initial phase of this large and comprehensive capital projects undertaking.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
4,207	0	4,207	1,170	1,557	380	60	540	500	0	0

* Amounts in thousands of dollars

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Utoy Creek - Maintenance Building Improvements

Order	221		
Project Manager	Marcia Hurd-Wade		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	Renovation	End Date	2007
Project Category	Utoy Creek	WBS No.	02.15.004
NPU	I,H,P,R	Council	10
Facility	Utoy Creek WRC	Status	Unfunded

Description

This project includes the design and construction of a maintenance building for the Utoy Creek WRC.

Justification

The Utoy Creek WRC does not currently have a maintenance building. Maintenance performed on site is conducted in borrowed space around the site, which is not necessarily well suited for such work, but is all that is available. This project will provide suitable space for performing maintenance that is most cost-effectively performed on site.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,962	0	1,962	0	191	1,771	0	0	0	0	0

* Amounts in thousands of dollars

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RM Clayton - Landscaping Improvements

Order	302		
Project Manager	Rudolph Chen		
Program	System Renewal or Operational Reliability	Start Date	2002
Type	Renovation	End Date	2006
Project Category	RM Clayton	WBS No.	02.17.020
NPU	A,C,D	Council	8,9
Facility	R.M. Clayton WRC	Status	Funded

Description

This project includes the installation of trails, vegetative buffers, landscaping along the perimeter of the RM Clayton facility and other aesthetic enhancements. Phase I, which is currently underway, include landscaping at the facility entrance and along Marietta Road, Bolton Road and Barnett Drive. The project also includes the relocation of security fencing to allow public access to existing trails and to connect to trails being developed by the Path Foundation.

Phase II includes further improvements to the site entrance and other enhancements. The Department of Watershed Management will work with neighborhood representatives to further refine these improvements. Phase II work cannot be effectively implemented until current construction activities at the RM Clayton facility are complete (e.g. construction of the Nancy Creek pump station and tunnel, the West Area CSO facility and the West Area CSO tunnel).

Justification

These improvements are part of the Good Neighbor Program developed in conjunction with the phosphorus removal project and other plant upgrades.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,500	3,500	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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RM Clayton - Primary Area Upgrades

Order	305		
Project Manager	Larry Harrod		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	RM Clayton	WBS No.	02.17.050
NPU	A,C,D	Council	8,9
Facility	R.M. Clayton WRC	Status	Unfunded

Description

This project includes upgrades to Area Drainage Building, modifications to the odor control ductwork located in the Primary Area, structural repairs in the primary sludge pump house and tunnels, installation of liquid level detection and monitoring in the primary sludge pump house basement, replacement of the primary clarifier scum pumps, replacement of the primary clarifier area drainage system, and the replacement of significant portions of the process and utility piping located in the Primary Area including the primary sludge piping system, the centrifugal pumping system, and storm drain piping.

Justification

These facilities were not upgraded as part of Senate Bill 500 Phosphorus Control Upgrades. Repairs to the buildings and tunnels are required to maintain structural integrity and prevent leakage. The piping systems have reached, or are approaching, the end of their useful life.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
9,877	0	9,877	0	9,877	0	0	0	0	0	0

* Amounts in thousands of dollars

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RM Clayton - Building/Tunnel/Utility Upgrades

Order	306		
Project Manager	Larry Harrod		
Program	System Renewal or Operational Reliability	Start Date	2006
Type	Renovation	End Date	2008
Project Category	RM Clayton	WBS No.	02.17.051
NPU	A,C,D	Council	8,9
Facility	R.M. Clayton WRC	Status	Unfunded

Description

This project includes upgrades to the shop, maintenance, DAF, storage and blower buildings; replacement of two aeration blowers, replacement of blower building and main electrical panels, upgrades to the utility tunnel and replacement of critical, non-operational valves and water lines.

Justification

These buildings, equipment, and piping systems were not upgraded as part of Senate Bill 500 Phosphorus Control Upgrades. The age of the buildings, and changes in operation of the plant, necessitates upgrading to maintain the function and usability of the facilities. The piping systems and valves have reached or are approaching the end of their useful life. Replacement of the blowers is required to provide operational reliability and improve aeration capacity.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
7,988	0	7,988	0	7,988	0	0	0	0	0	0

* Amounts in thousands of dollars

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RM Clayton - Watershed Staff Offices Improvements

Order	307		
Project Manager	Larry Harrod		
Program	System Renewal or Operational Reliability	Start Date	2008
Type	Renovation	End Date	2012
Project Category	RM Clayton	WBS No.	02.17.010
NPU	A,C,D	Council	8,9
Facility	Water Administration	Status	Unfunded

Description

This project includes the design and construction of centralized office and laboratory space for City staff located at the RM Clayton site.

Justification

Currently, City staff at the RM Clayton site are located in numerous buildings and construction trailers around the site. Some of the construction trailers are approaching 20 years of age. This project will replace staff office and laboratory space which is reaching the end of its useful life, and will consolidate City staff to improve staff and project management.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
5,000	0	5,000	0	470	4,530	0	0	0	0	0

* Amounts in thousands of dollars

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Utoy Creek - Small Capital Projects

Order	322		
Project Manager	David Winters		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2007
Project Category	Utoy Creek	WBS No.	02.19.904
NPU	I,H,P,R	Council	10
Facility	Utoy Creek WRC	Status	Unfunded

Description

This project includes a number of individual projects that are required at the Utoy Creek WRC that are not large enough in magnitude to require separate CIP entries. These projects are intended to be implemented over multiple years. (See funding schedule below.) The justification for each work item is enumerated at the far right of each line item; consult legend in Justification Section below. The individual projects are as follows:

- A. Primary Sludge Pumping Station Rehabilitation – 1, 2, 3, 5
- B. Sodium Hypochlorite for Nocardia Foam Removal – 5
- C. Ferric Chloride Addition System upstream of Filtration – 4, 5
- D. Alkalinity Meter in Mixed Liquor Channel – 6
- E. Permanent Dewatering of Electrical Manholes near Secondary Clarifiers – 2
- F. Miscellaneous Lifting Equipment Improvements – 2, 3
- G. Potable Water System Analysis and Fire Hydrant Replacement – 1, 2, 3, 4
- H. Paved Access to Secondary Scum Pumping Stations – 2
- I. Screenings Handling Improvements – 1, 2, 5
- J. Upgrades to the Utoy Creek Pumping Station – 2, 3, 4, 5, 6
- K. Post Aeration Gate and Valve Improvements – 2, 3, 5, 6
- L. Filter Building Wall Replacement – 1, 3
- M. Foxboro Distributed Control System (DCS) Upgrades – 3, 5, 6

Justification

The following list summarizes the justification for the above project elements. Each project element above lists the requirements that are driving each need to the right of the project title according to the following legend:

- 1. Code Compliance
- 2. Equipment Maintenance
- 3. Replacement of Aged/Damaged Assets
- 4. Capacity Improvement
- 5. Treatment Improvement
- 6. Process Control Improvement

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
6,854	0	6,854	296	2,662	257	2,309	133	1,197	0	0

* Amounts in thousands of dollars

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Subsection Wastewater

South River WRC Effluent Pumping Station Upgrade

Order	330		
Project Manager	John Reinhard		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	South River	WBS No.	02.18.903
NPU	Z	Council	1,12
Facility	South River WRC	Status	Unfunded

Description

This project includes upgrading the pumping station and/or providing storage to handle current and future peak flows that are projected to reach 110mgd. Work also includes upgrading the control system and the electrical equipment, as well as replacing the pump discharge piping and valves.

Justification

This pump station is approaching 20 years of age and needs to be upgraded to restore capacity. The capacity of the existing pump station (71mgd) was reached in 2003. Additional capacity is anticipated to be required as a result of the ongoing sewer system improvements. In order to comply with the South River National Pollutant Discharge Elimination System (NPDES) permit, this pump station must have adequate capacity to pump the flow treated at the South River WRC.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
6,000	0	6,000	1,700	4,300	0	0	0	0	0	0

* Amounts in thousands of dollars

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South River - Upgrade of Solids Handling at Headworks

Order	331		
Project Manager	John Waddington		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2005
Project Category	South River	WBS No.	02.18.904
NPU	Z	Council	1,2
Facility	South River WRC	Status	Funded

Description

This project involves replacing the failed/failing solids handling equipment in the Bar Screen Area, the Grit and Dumpster Area, and the Drum Screen Compactor Area, with four simplified conveying systems. All four conveyors will be of identical design with full commonality of parts. The proposed conveying system is currently in use at the Jonesboro Road Influent Station and has proven to be a reliable and easily maintained system.

Justification

The project is required due to the poor condition and functionality of the solids conveying systems in the preliminary treatment area. The inability of the existing systems to effectively handle the material results in blockage of equipment, increased wear and tear on the equipment, and the need for constant attention from maintenance personnel. Eight out of twelve conveyors/compactors are out of service and the remainder are likely to fail within 6-12 months. If the problems are not resolved they will result in overloading and premature failure of downstream processes.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
792	792	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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South River - Small Capital Projects

Order	332		
Project Manager	John Waddington		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2007
Project Category	South River	WBS No.	02.18.901
NPU	Z	Council	1,12
Facility	South River WRC	Status	Unfunded

Description

This project includes a number of individual projects that are required at the South River WRC that are not large enough in magnitude to require separate CIP entries. These projects are intended to be implemented over multiple years. (See funding schedule below.) The justification for each work item is enumerated at the far right of each line item; consult legend in Justification Section below. The individual projects are as follows:

- A. Replace the electrical panel and MCCs at the Jonesboro Road Pump Station and integrate into the Foxboro Distributed Control System.-2,3,6
- B. Rebuild and replace the RAS Pumping Station check valves (and piping) and install isolation valves downstream.-2,3, 5,6
- C. Perform study and replace the diaphragm pumps at the Primary Sludge Pumps.-3,5,6
- D. Add auxiliary seal water to filter influent pumps.-6
- E. Repair underlying settlement of the soil at the Influent Pump Station.-2
- F. Clear North and South Primary Pumping Stations drains and evaluate drain system to identify clogging problems-1,2
- G. Clean, inspect, and paint the Plant Service Water Storage Tank and install new level sensing device and fire hydrants.-2,3
- H. Assess removal and replacement of the underground storage tank and replace with above-ground oil storage tank and secondary containment if warranted.-1,3
- I. Identify and tag all valves at the facility.-2,6
- J. Retain an architect to review space needs and availability and define optimal layouts of existing facilities/design necessary changes.-6
- K. Change drain piping in the laboratory to prevent backups in the chemical or sanitary sewer lines.-3
- L. Alter the crane system in the thickened waste activated sludge buildings to allow proper alignment and speed of bridge crane over centrifuge.-1,2,7
- M. Overhaul the monorail crane system in the old chlorine building and bring into service.-3

Justification

The following list summarizes the justification for the above project elements. Each project element above lists the requirements that are driving each need to the right of the project title according to the following legend:

- 1. Code/Permit Compliance
- 2. Equipment Maintenance/Repair
- 3. Replacement of Aged/Damaged Assets
- 4. Capacity Improvement
- 5. Treatment Improvement
- 6. Process Control Improvement
- 7. Safety

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
7,976	0	7,976	1,065	2,181	202	1,816	271	2,441	0	0

* Amounts in thousands of dollars

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Subsection Wastewater

Intrenchment Creek - Small Capital Projects

Order	342		
Project Manager	Paula Days		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2007
Project Category	Intrenchment Creek	WBS No.	02.20.900
NPU	W,Z	Council	1
Facility	Intrenchment Creek WRC	Status	Unfunded

Description

This project includes a number of individual projects that are required at the Intrenchment Creek WRC that are not large enough in magnitude to require separate CIP entries. These projects are intended to be implemented over multiple years. (See funding schedule below.) The justification for each work item is enumerated at the far right of each line item; consult legend in Justification Section below. The individual projects are as follows:

- A. Replace the HVAC system and carpets and furniture in the Administration Building.-3
- B. Rehabilitate the primary clarifiers (install separate drive mechanisms for each clarifier; replace piping and pipe supports in the primary sludge valve pits).-2,3,4,5
- C. Rehabilitate or replace effluent launders in the Intermediate Clarifiers.-3,5
- D. Rehabilitate the twelve Trickling Filters distributor arms (level arms; inspect and replace spray nozzle and deflector plates as needed; inspect bearings; and replace endcap on each arm).-2,5
- E. Upgrade Intermediate Pumping Station (replace drypit submersible pumps and entire electrical and control system).-2,3,5,6
- F. Upgrade Potable Water Piping (model the water distribution system; identify and repair blockages and constricted piping; install parallel pipes for better flow and pressure).-2,3,5
- G. Replace the generator fuel storage tank and make modifications to the secondary containment system to meet code requirements.-1,3,4

Justification

The following list summarizes the justification for the above project elements. Each project element above lists the requirements that are driving each need to the right of the project title according to the following legend:

- 1. Code/Permit Compliance
- 2. Equipment Maintenance/Repair
- 3. Replacement of Aged/Damaged Assets
- 4. Capacity Improvement
- 5. Treatment Improvement
- 6. Process Control Improvement
- 7. Safety

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
6,271	0	6,271	102	915	375	3,379	150	1,350	0	0

* Amounts in thousands of dollars

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Small PS Upgrades (Highlands, Niskey Lake 1 & 2, and Cascade Road)

Order	352		
Project Manager	John Reinhard		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Pump Stations	WBS No.	03.03.050
NPU	A,H,I,P,R,S	Council	10,11
Facility	Various	Status	Unfunded

Description

This project includes the repair and/or replacement of the pumps and electrical panels at the Highlands, Niskey Lake No.1 and Niskey Lake No. 2 pump stations.

Justification

The Niskey Lake Pump Stations and the Highlands Pump Station were installed in approximately 1968, 1983 and 1992 respectively. The pumps and electrical panels at are anticipated to require replacement at the Niskey Lake Pump Stations and repair or replacement at the Highlands Pump Station.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
254	0	254	254	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Pump Station - Bar Screen Replacement (BR&PL)

Order	353		
Project Manager	John Reinhard		
Program	System Renewal or Operational Reliability	Start Date	2006
Type	Renovation	End Date	2008
Project Category	Pump Stations	WBS No.	03.06.905
NPU	D,G	Council	9
Facility	Various	Status	Unfunded

Description

This project includes replacing the Bolton Road and Philip Lee bar screens.

Justification

The bar screens at the Phillip Lee and Bolton Road Pump Stations were installed in 1973 and 1977 respectively. These bar screens were repaired in 2000 and will be used until replacement is required. Such replacement is anticipated to be required in approximately 2008.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,000	0	2,000	0	0	2,000	0	0	0	0	0

* Amounts in thousands of dollars

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Aquarium - CSO Separation

Order	465		
Project Manager	Lance Clark		
Program	System Renewal or Operational Reliability	Start Date	2003
Type	New	End Date	2004
Project Category	Payment	WBS No.	05.95.005
NPU	E,L,M,T	Council	2,3,5,6,8
Facility	Collection	Status	Unfunded

Description

The purpose of this project is to provide funds for the sewer separation portion of the development of the Georgia Aquarium in the Tanyard CSO Basin to the developer who is performing the work. The project consists of installing both new storm and sanitary sewers. Approximately 1,480' of 18" diameter ductile iron sanitary sewer pipe and approximately 905' of 48" and 560' of 36" diameter concrete storm sewer pipe will be installed by the developer. The existing combined sewer along Baker and Luckie Streets, from the new connection at Simpson and Luckie Streets to a new connection at Baker Street and Techwood Drive, will be removed. A 42" diameter storm sewer connection will be constructed for a future 0.28 million gallon underground storm water detention vault and an 18" diameter sanitary sewer connection will be made for the Aquarium complex.

Justification

Funding of water and sewer improvements in the public right-of-way is part of the City's commitment in support of development of facilities for the public good. Sewer separation in the Tanyard Creek CSO Basin is a component of the Authorized CSO Remedial Measures Plan.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,580	1,580	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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Repair and Replace Roofing - Annual Contract

Order	541		
Project Manager	John Reinhard		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2013
Project Category	Annual Contract	WBS No.	08.01.013
NPU	ALL	Council	ALL
Facility	Various	Status	Unfunded

Description

This project provides an annual contract for the repair or replacement of roofs on facilities managed by the Department of Watershed Management.

Justification

A significant number of roof repairs are currently needed and will continue to be needed on an ongoing basis as the Department of Watershed Management facilities age. Using an annual contract to perform this work provides a mechanism to react quickly when leaks are found (thereby minimizing damage to property) and allows the roofing work to be bid as a single job rather than a series of small jobs.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
2,200	0	2,200	220	220	220	220	220	220	220	660

* Amounts in thousands of dollars

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Renovate James Walker Sewer Facility

Order	542		
Project Manager	Bob King		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Facilities	WBS No.	07.05.001
NPU	V,W,Y	Council	1,2
Facility	James Walker Facility	Status	Funded

Description

This project is for the land purchase only.

This project is for the purchase of land required to build a combined use facility at Peyton Road Pipeyard, Substation and Central Warehouse (University and Pyor) – WBS no. 98.02.035. Structure shall be pre-engineered metal building with all related site improvements. Structure will provide approximately 17,000 square feet of space.

This item does not include the building cost, which is covered under Water Bureau.

Justification

This project provides a more updated facility and efficient work space for the City Sewer Maintenance personnel and Water Bureau staff.

1. Central Warehouse will consolidate materials to support Bureau of Water Distribution and Maintenance activities as well as City Sewer Maintenance personnel.
2. This project will allow for more efficient distribution of materials as well as greater accountability of the inventory.
3. Currently crews are located at different areas. The plan is to house them at Peyton Rd. for dispatching purposes.
4. Central Warehouse Facility – Design and construct new central warehouse to centralize stock and inventory for control and management of inventory.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,000	3,000	0	0	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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AHA - Harris Redevelopment - Phase 2a

Order	553		
Project Manager	Rob Hunter		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2004
Project Category	Payment	WBS No.	05.96.011
NPU	I,K,L,M,S,T,V	Council	3,4,10
Facility	Collection	Status	Unfunded

Description

Provide funding to AHA for public infrastructure improvements necessary for the redevelopment of Harris Homes (Collegetown at Harris), in support of AHA funding under HUD federal grant program. Specifically, Phase 2A funds the second phase of water and sewer improvements in the public right of way; and the second phase of sewer separation within the AHA redevelopment as part of the Greensferry sewer separation project of the authorized CSO Plan. Improvements include:

- Water Mains – 4,200 LF of 8-inch pipe
- Sanitary Sewer – 3,000 LF of 8-inch pipe; 350 LF of 12-inch pipe; 900 LF of 15-inch pipe
- Storm Sewer – 4,200 LF of 15-inch pipe; 720 LF of 18-inch pipe; 500 LF of 24-inch pipe; 350 LF of 30-inch pipe; 80 LF of 36-inch pipe; and 400 LF of 72-inch pipe

Justification

Sewer separation in the Greensferry basin is a component of the Authorized CSO Plan as required by the Consent Decree. Funding of water and sewer improvements in the public right of way is part of the City's commitment in support of AHA funding under HUD federal grant program.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,290	0	3,290	3,290	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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AHA - Harris Redevelopment - Phase 2b

Order	554		
Project Manager	Rob Hunter		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2004
Project Category	Sewer Separation	WBS No.	05.96.012
NPU	K,L,M,S,T,V	Council	2,3,4,10
Facility	Collection	Status	Unfunded

Description

Provide funding to AHA for public infrastructure improvements necessary for the redevelopment of Harris Homes (Collegetown at Harris), in support of AHA funding under HUD federal grant program. Specifically, Phase 2B funds the storm water pond component of sewer separation within the AHA redevelopment as part of the Greensferry sewer separation project of the authorized CSO Plan. Improvements include:

- Storm water pond to retain and treat the storm water runoff from a 96-acre area immediately upstream within the Greensferry basin
- Provides localized downstream flood control
- Provides approximately 4 acres of Greenspace – community amenity
- Consistent with Clean Water Atlanta Initiative to provide greenspace and natural treatment within redevelopment projects

Justification

Sewer separation in the Greensferry basin is a component of the Authorized CSO Plan as required by the Consent Decree. Funding of water and sewer improvements in the public right of way is part of the City's commitment in support of AHA funding under HUD federal grant program.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,965	0	3,965	3,965	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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AHA - Harris Redevelopment Phase 3

Order	555		
Project Manager	Joe Basista		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	Renovation	End Date	2005
Project Category	Payment	WBS No.	05.96.013
NPU	K,L,M,S,T,V	Council	3,4,10
Facility	Collection	Status	Unfunded

Description

Provide funding to AHA for public infrastructure improvements necessary for the redevelopment of Harris Homes (Collegetown at Harris), in support of AHA funding under HUD federal grant program. Phase 3 funds the third phase of water and sewer improvements in the public right of way; and the third phase of sewer separation within the AHA redevelopment as part of the Greensferry sewer separation project of the authorized CSO Plan. Improvements include:

- Water Mains – to be determined
- Sanitary Sewer – to be determined
- Storm Sewer – to be determined
- Source of estimated costs – AHA

Justification

Sewer separation in the Greensferry basin is a component of the Authorized CSO Plan as required by the Consent Decree. Funding of water and sewer improvements in the public right of way is part of the City's commitment in support of AHA funding under HUD federal grant program.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
654	0	654	0	654	0	0	0	0	0	0

* Amounts in thousands of dollars

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AHA - Perry Off-Site Redevelopment

Order	556		
Project Manager	Rob Hunter		
Program	System Renewal or Operational Reliability	Start Date	2005
Type	New	End Date	2005
Project Category	Payment	WBS No.	05.96.009
NPU	D,G,J	Council	9
Facility	Collection	Status	Partially Funded

Description

The Perry off-site revitalization project requires additional sewer capacity within the Proctor Creek sewer basin. AHA proposes to develop a private wastewater treatment facility to treat wastewater from the Proctor Creek basin to standards that allow spray irrigation. The funding represents the estimated City share of the project.

Justification

Funding is part of the City's commitment in support of AHA funding under HUD federal grant program. Project will relieve capacity limitations within portion of the Proctor Creek sewer basin, in compliance with the First Amended Consent Decree.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,900	0	3,900	3,900	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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AHA - Capital Redevelopment Phase 1

Order	557		
Project Manager	Joe Basista		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Payment	WBS No.	05.96.014
NPU	M,N,W,V	Council	1,2,3,4,5
Facility	Collection	Status	Unfunded

Description

Provide funding to AHA for public infrastructure improvements necessary for the redevelopment of Capital Homes, in support of AHA funding under HUD federal grant program. The project funds water and sewer improvements in the public right of way. The funding is phased in parallel with AHA construction:

- Phase 1 -- \$1,333,958 (Year 2004)
- Phase 2 -- \$4,035,412 (Year 2004)
- Phase 3 -- \$1,353,013 (Year 2006)
- Source of estimated costs is AHA – costs will be refined as AHA progresses their engineering

Justification

Funding of water and sewer improvements in the public right of way is part of the City's commitment in support of AHA funding under HUD federal grant program.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,334	0	1,334	1,334	0	0	0	0	0	0	0

* Amounts in thousands of dollars

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AHA - Capital Redevelopment Phase 2

Order	558		
Project Manager	Joe Basista		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Payment	WBS No.	05.96.015
NPU	M,N,W,V	Council	1,2,3,4,5
Facility	Collection	Status	Unfunded

Description

Provide funding to AHA for public infrastructure improvements necessary for the redevelopment of Capital Homes, in support of AHA funding under HUD federal grant program. The project funds water and sewer improvements in the public right of way. The funding is phased in parallel with AHA construction:

- Phase 1 -- \$1,333,958 (Year 2004)
- Phase 2 -- \$4,035,412 (Year 2004)
- Phase 3 -- \$1,353,013 (Year 2006)
- Source of estimated costs is AHA – costs will be refined as AHA progresses their engineering

Justification

Funding of water and sewer improvements in the public right of way is part of the City's commitment in support of AHA funding under HUD federal grant program.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
4,035	0	4,035	0	4,035	0	0	0	0	0	0

* Amounts in thousands of dollars

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AHA - Capital Redevelopment Phase 3

Order	559		
Project Manager	Joe Basista		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2006
Project Category	Payment	WBS No.	05.96.016
NPU	M,N,W,V	Council	1,2,3,4,5
Facility	Collection	Status	Unfunded

Description

Provide funding to AHA for public infrastructure improvements necessary for the redevelopment of Capital Homes, in support of AHA funding under HUD federal grant program. The project funds water and sewer improvements in the public right of way. The funding is phased in parallel with AHA construction:

- Phase 1 -- \$1,333,958 (Year 2004)
- Phase 2 -- \$4,035,412 (Year 2004)
- Phase 3 -- \$1,353,013 (Year 2006)
- Source of estimated costs is AHA – costs will be refined as AHA progresses their engineering

Justification

Funding of water and sewer improvements in the public right of way is part of the City's commitment in support of AHA funding under HUD federal grant program.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,353	0	1,353	0	0	1,353	0	0	0	0	0

* Amounts in thousands of dollars

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AHA - Grady Redevelopment Phase 1

Order	560		
Project Manager	Joe Basista		
Program	System Renewal or Operational Reliability	Start Date	2006
Type	Renovation	End Date	2008
Project Category	Payment	WBS No.	05.96.017
NPU	M,N,W,V	Council	1,2,5
Facility	Collection	Status	Unfunded

Description

Provide funding to AHA for public infrastructure improvements necessary for the redevelopment of Grady Homes, in support of AHA funding under HUD federal grant program. The project funds water and sewer improvements in the public right of way. The funding is phased in parallel with AHA construction:

- Phase 1 -- \$1,823,396 (Year 2006)
- Phase 2 -- \$911,698 (Year 2007)
- Phase 3 -- \$911,698 (Year 2008)
- Source of estimated costs is AHA – costs will be refined as AHA progresses their engineering

Justification

Funding of water and sewer improvements in the public right of way is part of the City's commitment in support of AHA funding under HUD federal grant program.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
1,823	0	1,823	0	0	1,823	0	0	0	0	0

* Amounts in thousands of dollars

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AHA - Grady Redevelopment Phase 2

Order	561		
Project Manager	Joe Basista		
Program	System Renewal or Operational Reliability	Start Date	2006
Type	Renovation	End Date	2008
Project Category	Payment	WBS No.	05.96.018
NPU	M,N,W,V	Council	1,2,5
Facility	Collection	Status	Unfunded

Description

Provide funding to AHA for public infrastructure improvements necessary for the redevelopment of Grady Homes, in support of AHA funding under HUD federal grant program. The project funds water and sewer improvements in the public right of way. The funding is phased in parallel with AHA construction:

- Phase 1 -- \$1,823,396 (Year 2006)
- Phase 2 -- \$911,698 (Year 2007)
- Phase 3 -- \$911,698 (Year 2008)
- Source of estimated costs is AHA – costs will be refined as AHA progresses their engineering

Justification

Funding of water and sewer improvements in the public right of way is part of the City's commitment in support of AHA funding under HUD federal grant program.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
912	0	912	0	0	0	912	0	0	0	0

* Amounts in thousands of dollars

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AHA - Grady Redevelopment Phase 3

Order	562		
Project Manager	Joe Basista		
Program	System Renewal or Operational Reliability	Start Date	2006
Type	Renovation	End Date	2008
Project Category	Payment	WBS No.	05.96.019
NPU	M,N,W,V	Council	1,2,5
Facility	Collection	Status	Unfunded

Description

Provide funding to AHA for public infrastructure improvements necessary for the redevelopment of Grady Homes, in support of AHA funding under HUD federal grant program. The project funds water and sewer improvements in the public right of way. The funding is phased in parallel with AHA construction:

- Phase 1 -- \$1,823,396 (Year 2006)
- Phase 2 -- \$911,698 (Year 2007)
- Phase 3 -- \$911,698 (Year 2008)
- Source of estimated costs is AHA – costs will be refined as AHA progresses their engineering

Justification

Funding of water and sewer improvements in the public right of way is part of the City's commitment in support of AHA funding under HUD federal grant program.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
912	0	912	0	0	0	0	912	0	0	0

* Amounts in thousands of dollars

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Reserve for Appropriations - System Renewal or Operational Reliability

Order	621		
Project Manager	Calculation		
Program	System Renewal or Operational Reliability	Start Date	2004
Type	Renovation	End Date	2014
Project Category	Reserve	WBS No.	99.02.008
NPU	ALL	Council	ALL
Facility	Other	Status	Unfunded

Description

These reserve amounts are established for the Clean Water Atlanta capital projects in the event of significant increases in the scope and cost of identified projects, or for new projects not foreseen at this time that are related to implementation of projects identified in the CIP, or for other justifiable and unforeseen factors. These amounts are in addition to any reserve for appropriations established by the Finance Department related to any bond obligation requirement. This reserve may be funded, as needed, by short term debt instruments, if not funded via bond funds.

Justification

It is prudent to plan for unforeseen project costs at the initial phase of this large and comprehensive capital projects undertaking.

Project Total	Funded Total	UnFunded Total	2004	2005	2006	2007	2008	2009	2010	2011-14
3,928	0	3,928	806	1,675	627	432	84	260	11	33

* Amounts in thousands of dollars

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